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LAW OF THOUGHT

'Raise the stone, and there thou shalt find Me; cleave the wood, and there am I.'—*Sayings of Jesus: Oxyrhynchus Papyri* (Grenfell and Hunt).

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I. THE MACROCOSM

EVERYTHING, to be existential, objectively, must have a point or position in space and be subject to mutations in time. Nothing stands still absolutely, but only relatively, in respect of our sense-perceptions. Motion is the essential property of matter: there cannot be matter without energy, nor energy without matter, any more than there can be a phenomenon such as 'action at a distance.' Matter is the vehicle of energy—its objective reality; and both are attributes of Force, by virtue of which things are as they are—a self-compensating unity.[1] Eliminate the centripetency of force, and the world would be pulverised into its integral particles of matter, each of which would be a nucleus of energy. Destroy (other than to convert into energy) a single atom of matter, and the whole universe would collapse. So runs the theory.

The mere fact of stability denotes static unity, any subsequent disintegrations or mutations being in respect of time only, in the constant evolution of substance. But time and space exist only for the finite mind. There cannot have been a beginning, if there be no end, to the Sum of Things. If *past*, *present*, and *future* be conceived to form the triune segments of a circle, these would be

[1] Throughout this paper the following couples are held to be parallel processes or correlated terms in cosmogonic evolution: namely, *force and substance*, *energy and matter*, *spirit and body*. Considerations of space and proportional treatment restrict the author to the elucidation of general principles, as free as possible from dialectics. Definitions, for the most part, are relegated to footnotes; and terms not defined are used in their common signification.

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co-existent, by impinging, on the pivotal eternity of *Now*. Turn them as you will: the present separates past and future, but these two coincide. The terms 'eternity' and 'infinity' are metaphysical abstractions[1] which indicate the limits of human intellection: a closed system of Thought. The finite mind forms finite conceptions: the infinite contains itself.

Man is a thinking-machine: the alembic of Thought. He transmutes Thought into terms of Thought—the general into the particular. Thought exists, not in the thinker, but in the thing thought: a noumenon.[2] The mind dimly adumbrates, though it may be unable to seize and name, ideograms of intuitional perception which are co-ordinated in the subliminal consciousness and come to the surface under the stress of introspection or by unconscious cerebration. These ideographs are graven in the race-memory (by continuity of the germ-plasm), and are transmitted by heredity to individuals. In essence they are eternal thought, inherent in the living cell and co-une with it: a *cell-soul*. Their validity as phenomena can be established only subjectively; but their objective reality may be predicated when found to be universal in extension and co-ordinate with the law of substance. All thinking and sensitive substance (psychoplasm) is the reflex or mirror of Nature: the activities of thought and the phenomena of substance

[1] It is obviously impossible to subdivide the illimitable and immeasurable except in the arbitrary terms of subjective analysis; the objective *continuum* is a postulate of the reason.

[2] *Mind* is inconceivable without its content of *ideas*; but the ideas of our common pabulum must and do exist before the mind can contain them. This psychic function correlates the *perception* of an idea (Spinoza's *idea ideæ*), and may be compared to the reproduction of sound from a phonographic record. Mind, connoting memory, is organised thought; and mind, connoting spirit, is synonymous with *soul*. These are the physical and psychical contents of the *Ego*. Mind co-ordinates thought: it does not create it, except as a compound product. As in all cell-life, the mind is a complex community of interacting forces.

are identic in evolution, a compound monism.[1] There is no such thing as absolutely dead matter, because it cannot be divorced from energy.

Now, substance may be ponderable or imponderable, according to its consistency (*i.e.* degree of condensation) and in the measure of its relative perceptivity to sensitive (therefore, all living) organisms, thereby yielding quantitative and qualitative attributes capable of analysis. It may be said even to be tangible when weighed in the chemist's balance, or when subject to experiment by the numerous mechanical means applied by man to aid his very imperfect and limited senses. Thus, the advance of knowledge waits on the discovery of artificial media to stimulate or augment our sense-perceptions; and mental presentations rest, in the meantime, on rational hypotheses that co-ordinate and interpret the empirical dogmas of science. Scientific faith and imagination are essential handmaids to discovery. Scientific instinct is the herald of exact knowledge. There is nothing new under the sun save in our perception of it, when it is added to our common pabulum. If there were no *continuity*, there could be no science—no rational thought whatever.

The mere fact that co-ordination of phenomena and synthesis of noumena are sought in all departments of earth-lore, in relation to the Cosmos, indicates the demand of reason for causality. Unless Nature thought (*i.e.* functioned) consecutively, logically, and inevitably, it would be impossible for the scientist to formulate

[1] Professor Haeckel distinguishes five stages in the evolution of the psychic function. 'At the lowest stage of organisation the *whole psychoplasm*, as such, is sensitive, and reacts on the stimuli from without': and 'at the fifth stage, the highest psychic function, *conscious perception*, is developed by the mirroring of the sensations in a central part of the nervous system.' And, in discussing the rising scale of presentative function, he says: 'At the lowest stages we find presentation to be a general physiological property of psychoplasm.'—*Riddle of the Universe*, pp. 112-20.

any rational hypothesis. If 'blind chance' and not 'intelligence' (amounting to purposive effect, by proving constant) determined the evolution of substance, the magnificent achievements of scientific research were but illusory, since the human intellect is (so far as we know) the highest product of Nature and its ultimate expression in matter.[1] 'The human mind,' says Carus Sterne, 'is nothing but a more or less faithful lens which brings to a focus the rays of knowledge dispersed through Nature'; and, Oerstedt states, 'the laws of thought by which we draw inferences apply also to Nature itself.' We think in anthropistic terms because the mind halts at human experience, in its attempt to prove objective reality; but the imagination runs riot in a world of elusive noumena, in its effort to seize the soul in the image. The one seeks to grasp the 'thing-in-itself,' in the concrete; the other searches in vain for Truth, in the abstract: the analogy is complete. Yet, all the while, the star of Truth is mirrored in the puddle of experience—the birthplace of man: the sub-sensible world alone persists as an identic, unchanging reality.

Either the ethersphere, which fills or contains interstellar space, is the 'thing-in-itself,' and ponderable matter does not exist, except subjectively, or we must concede a so-called dualism (*i.e.* duality) of body and soul, matter and spirit.[2] But this antithesis, or correlation between the Ego and non-Ego, is more apparent than real: in a

[1] The assumption that 'blind chance' prevails because the explorers cannot discover law and order, and purpose too, is very naïve. To state that 'consecutive thought is a rare phenomenon in Nature,' as Haeckel does (*Riddle of the Universe*, p. 390), is a paradox. All great synthesists have cosmic intellects: *i.e.* they think cosmically, and not in the petty terms of subjective analysis. Genius is the amanuensis of the soul.

[2] Spirit is more *real* than matter. The 'death' of those dear to us is not the physical but the psychic cessation of function in the body, and is always associated in our memory with the mind and character of the deceased. Body is the nucleus of the soul.

word, we recognise a monism of substance, or a dual aspect (inter-dependence) of body and soul in a compound entity. It all depends upon the point of view: everything is relative, and all knowledge is a synthesis of relations. As thought requires matter to think in, so spirit requires substance to subsist in. Mind is organised spirit, and memory is organised thought; while both together inhere by co-ordination in the psychoplasmic soul. Body and spirit in the microcosm connote matter and energy in the macrocosm, or substance and force in the Realm of Thought, whose centre is everywhere and circumference nowhere—illimitable and eternal. These are mere gradations (extensions or modes) in the plane of Thought which unite into an organic unity, like the plan and elevation of a spherical body in projection, by rabatting one upon the other. We must distinguish between 'logical inspection' and 'psychological introspection.'

The philosophy of unity postulates universal law operating homologously in Nature and based on the hypothesis of Force. What we call gravity is merely the operation (mode of motion) of this law, not the causal law itself. It would be truer to define this fundamental law of Nature as *the centripetency of force.*[1] In the orbital motion of electrons, on the disintegration of a radio-active atom, no less than in the movements of planetary bodies in our solar system and in the cycle of the sidereal universe, we observe or assume the same centripetency of force as in the birth and development of

[1] Centripetency of force is the reaction of momentum, the conversion of kinetic into potential energy, and *vice versâ*, as in the recoil of a projectile shot vertically into the air against the pull or molecular strain of gravity. (Cf. *The Unseen Universe*, p. 76 *et seq.*) *It is poised force*, and therefore of unstable equilibrium. Indeed, one might say it is the *only* law of motion, because it correlates and contains the Newtonian laws in the unity of a formula—or constant function (*vide infra*). By poised force we mean visible potential energy. Witness the action of a sling-thrower.

a nebula. It follows, that there must be some absolute point (which we may call the *cosmic matrix*) round which all ponderable and imponderable substance revolves in an eternal cycle. We can no more determine the nature and content of this cosmic focus than we can conceive what may lie beyond: and so we call it Force—the vortex-centre or prime nodality of inter-atomic activities: the Universal Soul—or by some other metaphysical term which transcends all human powers of intellection. Nature is the thinking-process of the Godhead.[1]

The Ultimate Reality in the Realm of Thought must, therefore, be sought in Force and interpreted in the terms of its attributes, energy and matter, in so far as the macrocosm is concerned. Correlatively, the Ego of man must have its seat in the soul, which connotes spirit and body in conscious union: a microcosm. The Ultimate Reality for man cannot, in consequence, be predicated except in terms of the finite mind—anthropistically; but, unless a limit be placed on evolution—which would be a contradiction in terms—it is rational to assume that man will develop in course of time powers of intellection of which at present we have only the faintest conception. By psychic selection, the mind must triumph over body in an ever-increasing degree, to which no limit can be set.[2] Psychic evolution, in its present rudimentary stage,

[1] 'We have seen that this medium—this ether—has the power of transmitting motion from one part of the Universe to another. . . . But we may go even further than luminiferous vibrations and the surfaces of bodies, since the law of gravitation assures us that any displacement which takes place in the very heart of the earth will be felt throughout the universe, and we may even imagine that the same thing will hold true of those molecular motions which accompany thought. For every thought that we think is accompanied by a displacement and motion of the particles of the brain, and somehow—in all probability by means of the medium—we may imagine that these motions are propagated throughout the Universe.'—*The Unseen Universe*, § 195.

[2] If the purely utilitarian, determinist, and mechanical aspects of evolution be insisted upon, it is impossible to account (or even to

is merely conscious of a mystery it cannot solve: the conception of a chrysalis. What will people, ten thousand years hence, think of our philosophy? Surely we must make provision for some intelligent developments?

Such speculations are, of course, barren of any result except to discredit the finality of human judgment. The most advanced thought of the day is, however, endeavouring to bridge the abyss between the organic and inorganic realms of organisation; and in this direction, at least, we appear to be on the brink of great discoveries, *e.g.* in the theory of the electronic constitution of matter. We are coming into closer touch with Nature and unravelling the swaddling-clothes of her marvellous unity. Darwin disclosed the mutability of species, which may be traced back to primordial stems in organic evolution—possibly to a single parent stock; whilst now we have stumbled upon the mutability of the atom, and reduced (at least to compound radicals) the number of the known elements of matter. In time, no doubt, with higher temperatures at our command, we shall reach the *Urstoff*—the simple, primitive substance immanent in Nature: the warp and woof of the world.

The old dogma of the immutability (or integrity) of the atom, and therefore to some extent that of the conservation of energy, has been profoundly modified by discoveries in the radio-active properties of matter. Whilst the persistence of energy and the equiponderance (or apologise) for the remarkable development of the psychic function, which compels man to subordinate his material advancement to the dictates of his conscience and his sense of duty. Self-sacrifice and not self-preservation is characteristic of those whom we honour and love; and it is in the equitable or rational adjustment between egotism and altruism that we recognise the sanity and virility of the race. Race-instinct cannot be divorced from the persistent force which creates heroes out of men, martyrs out of saints, and seers out of thinkers. Is not self-sacrifice the central principle of Christianity—to which it owes its force?

indestructibility) of the sum-total of matter are in nowise dethroned by the new theory of substance, nor in antagonism to a logical view of the evolutionary process, but, rather, an extension of principle, the cosmic problem has been advanced a stage by reducing the atom to its constituent electrons and by regarding 'electricity' as, in effect, a corpuscular substance.[1] If, in course of time, the elements of matter are traced back to a common origin (*e.g.* a simple, primitive material: *protyle*), this basic element of substance may prove to be an aggregation of energy (cathode particles) corresponding to ethereal strain or the transmutability of energy and matter in their ultimate complexus. The granular or corpuscular ether is of heterogeneous complexity—a conditioned state of substance—and of unstable equilibrium: it may be regarded as generalised matter of unique constitution, or as 'radiant matter.'

The identification of Thought with cosmic energy is a psycho-physical parallelism which enables us to establish a complete synthesis of the forces of Nature, and is therefore a legitimate hypothesis for the transcendental philosopher. That Thought can exist *per se* (as sensigenous molecules, or molecular memory) is no more difficult to understand than that energy (as a principle) can exist *per se*, if, as we have some right to assume, thought and energy are identic attributes or correlated stimuli in cosmic phenomena. *By Thought, then, we mean that causal attribute*[2] *of matter which builds up a connected*

[1] If the sum of energy be irreducible, it must have objective reality, and therefore substantive existence. In electric railways, the 'live rail' carries a current of electricity which would be more 'real' to a man completing a 'short circuit' with the earth than the rail itself, because it would kill him. Electricity, then, is a discrete substance.

[2] *Thought* is an Anglo-Saxon word that implies not only the act, but also the power, of thinking—that is, potential as well as kinetic energy. Physically speaking, it is the stimulation of the brain-surface or cortex: the co-ordinated response to an external stimulus.

and sub-sensible whole in the Sum of Things—the energy of our ingesta no less than of cosmogonic substance: intelligence behind matter, or the determining factor in the unity of Nature.[1] This unifying principle or amalgamating element must be immanent in all substance, and may be conceived to occupy the interstices between the atoms and molecules of matter. It is, in short, the fourth dimension of space or prime state of matter (*plenum* or *protyle*), which the unity of affinity compels us to postulate: neither solid, liquid, nor gaseous, but an elastic medium of viscid consistency, characterised simply by its inherent tendency to condensation or susceptibility to strain. We may regard it, therefore, as the single primitive force, and call it *prodynamis*[2]—the active property of ether, or ether itself: the medium for the transmission of light, heat, and electricity, or the basic principle of these states of energy—without demanding an irrational or illogical hypothesis to co-ordinate the phenomena of substance. In the nature of things, there must be some causal or prime element, immanent in substance, otherwise we are thrown back on the dogma of special 'creation' and must repudiate the fundamental law of evolution: biogenesis. The conservation of energy

[1] This synthesis of natural phenomena, or homology of causation, is, in itself, a convincing attestation of God—or, in so far as we can realise Deity, Vibrant Thought. It is because energy and matter are in a state of static equipoise, or dynamic equivalence, that we do not perceive the presence of spirit (or energy) apart from matter, but only their constant interaction in the law of evolution. Since the conservation of energy by a cosmic organism like our earth may be held to account for the phenomena of gravity, as being due to the centripetency of force, energy itself is as much an objective reality as the matter with which it is associated. Geological structure, in this cosmic sense, connotes 'memory.'

[2] 'Gravity and chemical action, electricity and magnetism, light and heat, etc., are only different manifestations, forms, or *dynamodes* of a single primitive force (*prodynamis*). This fundamental force is generally conceived as a vibratory motion of the smallest particles of matter—a vibration of atoms.'—Haeckel's *Riddle of the Universe*, p. 220-1.

and matter involves a reservoir, an *Urstoff*. Absolute motion involves absolute space. *A*bsolute, *B*iogenesis, *C*entripetency—these are the *A B C* of the alphabet of Nature.

This theory of the co-ordinating power in Nature being invested in psychoplasmic force (the principle of ether) and converted into various forms of energy by adaptation to environment, does at least supply a selective principle in the evolution of substance. If the origin of man may be traced back to the primordial germ of life, in protoplasm, and thence by cosmic stages to the birth of suns and nebulæ, we have only to institute a psycho-physical parallelism in order to make Thought the Ultimate Reality of everything. In the vast cycle of the evolution of substance, Thought may be said, then, to return to the cosmic matrix on the disintegration of any thought-nucleus—as, for example, the release of the soul on the death of the body, in a pantheistic sense.

The argument that the soul is not a psychic entity, but only an attribute of the mind, stands in sharp contrast to the scientific faith in atomic philosophy. If we concede the one we are logically bound to grant the other hypothesis as a postulate of reason, unless it can be proved that thought exists in language only and not in pure ideation—*i.e.* perceptivity by the organism of ideas or ideograms which exist in the form of noumena.[1] It is less difficult to conceive of a soul existing as a psychic entity than of man being evolved from a nebula.

Language, of course, is the mere garment of thought: a medium for the propagation and dissemination of ideas. The old system of bartering one's freedom for a verbal

[1] 'The man Peter is an existing thing (*quid reale*). The *true idea* of Peter is the nature of Peter represented in thought (*essentia Petri obiectiva*), and is itself an existing object wholly distinct from Peter.'—Spinoza: *De. Int. Em.*, c. 6 §33. (Hence the maxim: 'First catch your idea, then clothe it.')

quibble denotes a low stage of intellectual development. Progress in the future demands a common currency of Thought. No doubt we find the same thought enshrined in many variant vestures: even a dog may learn our language, but scarcely can be credited with thinking in it. Pure ideation is experienced, for instance, when our memory retains that elusive sense of a forgotten word or thing and conjures it into existence, not by introspection, but by allowing the mind to work sub-consciously. This automatic process in the cortex of the brain must be stimulated by something: by what else, then, than by the integrating power which, in our view, is Thought itself—or psychoplasmic force? So well organised is this function, that the mind has the faculty of precipitating, during sleep, solutions to problems that have baffled us in our conscious state. The sub-conscious mind is gifted with marvellous Protean powers, some of which are dimly perceptible in the phenomena of hypnotism, thought-transference (telepathy), and dreams. As in gravity or in etheric telegraphy, we perceive and can control the operations of certain laws, the dynamic action (unseen motion) of which we are unable to detect. Thus, all fundamental psychic changes take place in the sub-conscious soul.

In Dreamland, the incongruous association of ideas both in time and place, no less than the reckless irresponsibility of psychic action, constitute a phantasmagoria of the mind in its sub-conscious state, due to the abeyance of that supreme co-ordinating factor in Thought which determines the conscious exercise of *will-power*: and this involves the corollary that the *Ego* of man is the sole intelligent medium of his thought, the only responsible agent of his action.

If the centripetency of force, which underlies all phenomena, be the kinetic recoil from its centrifugal

action,[1] foci of force and centres or nuclei of thought bear a dynamic relationship, in which *like* recognises *like* and becomes one with it (isomers). The unity of Nature thus depends on the unity and co-ordination of its parts, of which man is the highest exemplar. The mutability of the atom and the mutability of species proclaim the same law underlying the inorganic and organic realms of organisation—the law of evolution, or the higher (*i.e.* extended) development of function. Psychic evolution is, of necessity, subject to this universal law: and, therefore, no limit can be placed on the development of the *psyche* or soul of man, which has its origin in substance, its vehicle in matter, and its transmutations in the never-ending cycle of Natural Law. The evolution of substance connotes the centripetency of force. The persistence of force, or availability of psychic substance, denotes the evolution of the Soul[2] from simple spirit to complex spirituality.

[1] *Cf.* Newton's Third Law of Motion: 'Action and reaction are equal and opposite.' All mass-motions in the ether are the result of antecedent mass-motions, according to the nebular hypothesis. Sun-spots, for instance, may be due to condensation or reaction of momenta caused by the excentric pull of planets in the solar system. *Momentum is imprisoned motion.* Recoil of Force is the crisis of momentum: in other words, its reaction. The authors of the *Unseen Universe* interpret Newton's Third Law, in the terms of the conservation of energy, thus: 'In any system of bodies whatever to which no energy is communicated by external bodies, and which parts with no energy to external bodies, the sum of the various potential and kinetic energies remains for ever unaltered.'

[2] Our normal senses in their co-ordinate action produce an æsthesis of spirit known to us as the soul, the plasticity of which correlates all sensitive and thinking substance. This substantive sense, as the product of the others, or psychic essence in man, is dependent on its causal connection during the sub-conscious life of the soul. Under this aspect the psychoplasmic soul acts as the sensitive recorder of spirit in matter, and is perceptual to the *Ego*, its co-ordinate. It exists consciously in spirit and sub-consciously in matter, and is subject to the universal evolution of substance. *Soul* is a mode of spirit, and *Spirit* (organising energy or active substance) is the universal vehicle of Thought under its various dynamodes of manifestation. 'As there is no nerve action without the evident presence of electricity,' Carl Snyder remarks, 'it seems probable that nerve action, thought, and consciousness, and what in our present ignorance we call electricity, are one and the same.'—(*New Conceptions in Science*, p. 265.) It may be simple, elemental force?

In this correlation of natural and psychic forces, which determines the unity of Nature, Thought alone emerges as being subject neither to time, nor to space, nor to matter. It is as eternal as the heavens, since a universe in which there was no thought (or *cyclic order*) is, of necessity, inconceivable. Take the letters of the alphabet —millions and trillions of them—and shuffle them together: is it imaginable that, without Thought, they could ever fall into a poem? Is it, therefore, too daring a hypothesis to advance, that ideas (noumena) exist and are transmutable by the same laws that control light, heat, and electricity? There may be (as in the ideographs of the Chinese language) a finite number of elemental ideas, but infinite variety in their association, through the co-ordinating power of thought. Associated ideas are word-pictures which the mind interprets.

'The laws of thought,' says Spiller, 'flowing from the human brain, have no logic other than that which is to be found in the laws of the Universe. Conscious human mathematical reasoning is none other in essence than unconscious physical thought.' 'Indeed,' remarks Sir John Herschel, 'it is a character of all the higher laws of Nature to assume the form of precise quantitative statement.' In this cosmic sense, then, consciousness is a condition of being (or of environment) and the product of thought;[1] and 'Thought,' as Paul von Lilienfeld says, 'is condensed motion . . . the condensed [concentrated] action of physical forces.' *In short, Thought is psychic centripetency: the gravidation of ideas.*

If ideas are physically registered on the brain and stored up by the memory, this psychic force must be a transmutation of energy: it must have its ultimate origin

[1] In the individual we distinguish between *world*-consciousness (the objective non-Ego) and *self*-consciousness (the subjective Ego). The intermediate state is *sub*-consciousness (alter-Ego), and this is experienced in sleep or by the inhibition of certain thought-centres.

or excitant from *without* and not from *within* the organism, which otherwise must be made to work upon itself. It may even become operative like combustion, which denotes the union of inflammable substance with oxygen or some other supporter of combustion. Whence, for instance, does the radio-active atom derive its energy: from within or from without? The most momentous discovery in the problem of substance depends on the true answer to that question. So far as we can judge at present, it is probable that energy is liberated by the disintegration of the atom (due to its inherent complexity and its relative atomic weight), or by the conversion of potential into kinetic energy; and this disruption is possibly caused by the necessity of all matter to establish, *pari passu*, static equilibrium in relation to environment.

The centripetency of force, resulting in mechanical gravity, is the ceaseless struggle of the elements to establish absolute equilibrium between constituent molecules. Vortex-centres are thereby created, in which the particles of matter, by their violent velocity, become charged with electricity—positive or potential force, and negative or kinetic energy. All atoms, according to Professor Larmor, are foci of ethereal strain: they break up, singly or in groups, and re-form by chemical affinity. Foci of force and centres of condensation thus bear a dynamic relationship, one to the other, and, like simple cells or nebulæ, are sub-divisible by partition. High- and low-pressure systems, in atmospheric circulation, break up in a similar manner; while ocean-currents, caused by wind and sun action, are fundamentally a transformation of solar energy.

If there be persistence and equiponderance of matter, there must also be constancy and equivalence in the mechanical value of energy, in a quantitative sense, *the change in consistency or valency yielding a qualitative*

process of evolution:[1] and therefore it is illogical to limit evolution to ponderable substance. What is imponderable (negative) to our senses to-day may be ponderable (positive), and therefore knowable, in the infinite to-morrow. Each century of thought extends its boundaries.[2]

Nature, regarded as a collective entity, in our idealistic system of thought, must ultimately precipitate into the centripetal focus of energy which gave it birth, and be subject to electronic reconstitution. The evolution of substance thereby involves the evolution of spirit—or whatever that determining factor (psychoplasmic force) may be called which moulds matter into specific forms and organisms into characteristic entities. Thus, *all matter is interpenetrated by ether* (active corpuscles), the objective medium of Thought. Nature is the expression, or reflex action, of Thought in substance.

Arguing on these lines, it may be stated, in the transcendental language of Universal Thought:—

I. That the world, as we know it, is itself a microcosm of that all-pervading Thought or Law which constitutes and controls the macrocosm by storing up energy in ether and motion in mass, and by limiting function to form. It is a cosmic organism, resulting from the conversion of energy into power; and, emanating from Supreme Law

[1] Haeckel gives the following genetic and continuous order in the evolution of substance: '(1) the etheric, (2) the gaseous, (3) the fluid, (4) the viscous (in the living protoplasm), and (5) the solid state.' For ether he postulates a special structure, which is not atomistic but dynamic and 'continuous.'

[2] We argue in this way. If, as a necessity (or even as a postulate) of reason, a missing article (or connecting link) must be located in one of twelve places, and we ransack thoroughly eleven places without finding it, then *it must be* in the twelfth place, even though that place be beyond our reach, and therefore incapable of investigation. This conviction produces faith. We believe the fundamental secret of Nature to be the organising or co-ordinating power which—for want of a better name—we call Thought, under its various dynamodes or manifestations. Its psychic function must be sought in the fourth dimension of space, and identified with psychoplasmic force: the cause of causes.

(Force Absolute), it ultimately returns, by the recoil of force, to its parent source, through the establishment of ethereal equilibrium and the momentum of mechanical causality.

II. We know this (or rather, our reason predicates its truth as the result of causality: the necessity of reciprocal adjustment[1] in any system of unity) by the Law of Continuity: because the orderly and self-compensating progression of natural phenomena cannot be an inherent property of matter, *per se*, without involving determinism (sequence of causation) by including spirit, which we regard as organising energy or active substance, the subjective mode (psychoplasm) or vehicle of Thought. Universal Law involves Cosmic Thought. God is the noumenon of Thought and the phenomenon of Design (*i.e.* purposive effect): the absolute Cause.

In consequence, we advance this substantive proposition:—

The Ultimate Reality of the Sum of Things cannot—so far as man is concerned—have existential import except in terms of Thought: and therefore Thought itself is the Ultimate Reality. The Ultimate Reality, by identity of content, implies the Absolute Reality, and correlates the Law of Thought.

Thought, as the highest product of Force, persists under various modes, not only in ponderable matter (with which it is temporarily combined in quantitative states of energy) and in organic bodies (in qualitative degrees of consciousness), but also dynamically in the infinitely attenuated condition of substance known as ether. Whether electrons and monads (as ultimate electrical and physical units in empirical analysis) be composed of still more remote foci and nuclei of force, or not, is a moot point:

[1] By the necessity of reciprocal adjustment we imply the reciprocity of force: cause and effect.

there must be some initial stage in the evolution of substance (in the terms of time and space) in which thought-centres (pyknatoms) are formed, and that stage must be sought in the ether, or inter-ether, which yields infinitesimal centres of condensation.[1] This amounts to a so-called 'First Cause'; but matter is 'created' only in the human perception of it as a phenomenon—that is, subjectively; whilst our closed system of mentality makes it appear to have a beginning and an end, analogous to the visible passage of a meteorite through the earth's atmosphere. *Indeed, one may say that the Ethersphere is the 'thing-in-itself,' and the Cosmos is a process or mode of its eternal motion.*

Thus, the Law of Thought (or Being) and the Law of Substance (or Causality) are identic in natural phenomena, because thought co-exists and is co-une with that prime or ultimate condition of substance known to us under the human concepts of its attributes, eternal time and infinite space. This Fourth Dimension (underlying the invisible molecular world) is co-existent, co-extensive, and commensurate with Substance, the immanence of which connotes and correlates its basic or psychic state—namely, the supreme co-ordinating power in Nature; whilst the co-unity of all modes of matter and all forms of energy is phenomenal in the conservation of Substance and Force.

The unity of Nature as a whole involves the co-unity of its component parts. What is true of the whole must,

[1] 'These minute parts of the universal substance [ether], the centres of condensation, which might be called *pyknatoms*, correspond in general to the ultimate separate atoms of the kinetic theory [in contradistinction to the pyknotic theory]; they differ, however, very considerably in that they are credited with sensation and inclination (or will-movement of the simplest form), *with souls*, in a certain sense—in harmony with the old theory of Empedocles of the "love and hatred of the elements." Moreover, these "atoms with souls" do not float in empty space, but in the continuous, extremely attenuated intermediate substance, which represents the uncondensed portion of the primitive matter.'—Haeckel, *Riddle of the Universe*, p. 222.

with equal reason, be true relatively of its constituents. Therefore, Spirit and Matter, being co-une and co-existent in Nature, are subject also to co-extension (or, *sui generis*, reconstitution) in their respective realms of organisation.

The question arises: Whether an infinite Whole can consist otherwise than of infinite parts—*i.e.* aggregates of terms? *We think not.*

II. THE MICROCOSM

Man is a mystery, and can be explained (not merely demonstrated) only in terms of abstract thought. He is conscious of his existence and of his relations to an external world through the medium of thought. In the absence of thought there could be no world—for man. If the world did not exist, he could not be conscious of it; if he himself did not exist, he could not be conscious of it: he exists by reason of his thought: he is a microcosm. Conversely, in the macrocosm, in our psycho-physical parallelism, Cosmic Thought conceives Substance—the substratum of *life*,[1] or sensibility to motion. This anthropistic connotation is legitimate only under our hypothesis and interpretation of a Fourth Dimension in space.

The world was antecedent to man, and therefore to his science. The world, as man knows it, is not perfect, owing to the limitation of his perceptive faculties; but

[1] Life, as a conservative force, is a process of constant change (transformations of energy); and it correlates motion, the inherent property of matter. The transmutations of energy are infinite and varied; but the modes of matter are finite and uniform: hence the subjection of the second to the first process, in cosmogonic evolution. The visible universe is finite, simply tending to aggregation of mass. The invisible universe is infinite and eternal: Cause and Effect in One. Life, then, although the highest function of motion, is subordinate to Thought: it is simply a medium or dynamode of thought—nothing more. In the scale of presentative function, *mind* ranks higher than self-consciousness; whilst memory and mind, as we have seen, combine to form the soul—*i.e.* organised thought and organised spirit in a psychoplasmic entity.

the Universe, which contains the whole of his concept of Truth, and therefore his standard of perfection, is and must be perfect, because it is infinite and eternal. As man did not create the world, nor has knowledge of the contents of eternity and infinity, his views on the subject are necessarily incomplete; but, since the part cannot contain the whole, his reason postulates a higher power than the Human Omniscience. His faith in this intra-mundane Deity is the measure of his sensibility to spiritual motion, impelling even to belief. Knowing no higher attributes than those of human perfection, this unknown Power becomes a unipersonal and anthropo-morphic God to some and a concept of Universal Law to others. Superstition is unreasoned faith: unreasoned faith is superstition—unless one believes in Revelation. Surely, life[1] itself is a revelation of something not *our-selves*, but infinitely lower, in the scale of presentative function?

Since the finite mind cannot gauge the infinite and unconditioned, it postulates an unknowable and absolute Cause immanent in Nature, both as a necessity of reason and in order to account for the orderly and inevitable sequence of natural phenomena, which, by virtue of its uniform constancy and constant uniformity, cannot be the effect of 'blind chance.' In anthropomorphic terms, this concept of the Absolute may be regarded as *intelli-gence behind matter*: the co-ordinating principle in Nature which builds up a connected whole in the Sum of Things. Thus, expansion and contraction, action and reaction, attraction and repulsion, and other correlated phenomena, are parallel processes or, *a fortiori*, convertible terms,

[1] Physically speaking, *inorganic life* is a poised aggregation of forces in stable equilibrium, and *organic life* is a definite combination of certain molecules (colloid particles) of substance in unstable equilibrium. Co-ordination is the essential property of psychoplasm and of psychoplasmic force.

being modes of motion in time and space due ultimately to the centripetency of force. This universal and fundamental law operates homologously in Nature, even in the mating or blending of two separate cells of diverse origin: the female ovum and the male spermatozoon, which combine to form the stem-cell of individual man.[1]

The doctrine of evolution predicates ultimate perfection of psychic function, by *soul-selection* in the Realm of Thought.[2] Those who have doubts on the subject cannot be sure of anything—even of their doubts. Those who have faith in an immanent God in Nature either anticipate a future state of conscious existence, when this riddle of the Universe may be solved for them, or abandon the problem as insoluble at the present stage of knowledge: *not proven* is the only verdict that science can legitimately uphold.

Now, because man does not know God in a unipersonal sense, it does not follow that God does not know man; and since man cannot cognise Deity save in terms of thought, it follows that Thought itself is the substantive Attribute of God. *God, then, in our anthropistic language, is Vibrant Thought operating as Law:* God in Nature is a cosmogenetic (objective) mode of Thought; and God in man is pure spirit—the subjective (centripetal) process of Thought, correlating condensative motion or organising energy in substance.

An indirect proof in support of the hypothesis that God is Vibrant Thought, operating as Law, is afforded by the negation of its antithesis. It is both inconceivable and impossible that the Universe could exist as an ob-

[1] The centripetal force, or *heredity*, has, as its correlate, a centrifugal force corresponding to *adaptation* in the development of the organism. This is an example of the law of compensation.

[2] Thus, organisms existing in three dimensions cannot adapt themselves to a fourth save under a long-persistent psychic force which becomes specialised in function. (*Cf.* footnote 2, page 30.)

jective reality in the absence of Thought (=cyclic order) and Law. We can imagine a world without man, but not a universe of lawless motion. And because Law is perceived by man through the function of Thought, there must be in him some measure of that divine essence or principle which, under various modes or phases, is immanent in Nature and builds up a perfect unity in the Order of Things. Evolution is the reaction of Involution: the reflex action of Thought.

When all life is destroyed on our globe; when the moon falls upon the earth; and when the earth and other planetary bodies plunge into the sun, the great drama of cosmic evolution will begin afresh—or so we think, and by so thinking we acknowledge paramount Law. Since, then, our faith in the nebular hypothesis leads us to predicate Natural Law in eternal operation—like causes producing like effects, typically speaking—is not it both rational and scientific to assume that another earth and other beings will be evolved from the new nebula which contains the elements of our solar system?[1] Still more: is not it irrational and unscientific to assume that our solar system is the only one in which life, as we know it, exists, or life in some form inconceivable to us? Because man, with his puny instruments, cannot search the stars and explore infinite space—because man, with his imperfect faculties, cannot cognise conditions other than those known to him—is it either rational or scientific to assume that no other conditions can or do exist, not even in eternity? Such superb arrogance stands in striking

[1] The long chain of causation in Evolution involves too many links to hypothesise beings of exactly the same *type* as on our earth to-day; but this does not shut out the predicability of Nature to produce higher or different species (*antitype*), such as may exist on other planets. It may be a *reductio ad absurdum* to postulate a fresh cycle of evolution from the devolution of our solar system: but the principle holds true. It is assumed that greater aggregations of mass would seek another centripetal focus.

contrast to the achievements in science itself, which would appear (as it were) to our forefathers as little short of miraculous. Knowledge knows no boundaries. At present we are merely on the threshold of cosmic discovery, and we have yet to realise the higher function of the psychic sense. We must learn the language of Universal Thought, which co-ordinates all phenomena under homologous terms—terms which define principles, not things. We must think cosmically.[1]

If time and space are actualities, and not mere illusions, human omniscience is in need of humility, faith, and spiritual insight, in order to correct its imperfect presentation. We include spiritual insight (ideation, or intuitional perception) because, under our hypothesis, man partakes of the divine energy in the measure of his sensibility to spiritual motion, or Cosmic Thought, which enables him to co-ordinate psychic phenomena and to perceive the organic unity of Nature. It is this great gift of the mind which brings man into true communion with God: the nexus between soul and body, spirit and matter, is an immaterial essence. To comprehend is to possess, to possess is to share, and to share is to partake in that Attribute of God which we call Thought. All these cosmic dynamodes—thought, energy, motion—are convertible terms in our hierarchy of Force; but the greatest of these is Thought, because it is dominant in Nature under our system of Universal Law and co-une with substance. And so men, who necessarily think in the terms of human thought, perceiving Law, posit a Law-giver—a Subject for an Object—or God, as the supreme Intelligence behind Nature,

[1] The danger of thinking cosmically does not necessarily involve the adoption of Cosmic Ethics, which are somewhat latitudinarian, because, under our concept of the immanence of Thought, Spiritual Law is the antitype of Perfection. There are worse churches than the cathedral of Nature.

operating as force in substance, energy in matter, instinct in the organism, and intuition [1] in man.

Thought rules man, as it rules the world, with unswerving insistence towards an apparent goal; and that goal cannot be the grave, or the Sum of Thought (which is the sum of psychic and co-ordinating energy) would not be constant. The miracle of man—of man in the aggregate: mankind—consists in this: that he is conceived in the womb of Nature and cannot fully realise his spirituality until freed of the after-birth of matter. His vague perception of this unknown force is the measure of his sensitiveness to spiritual impressions. And who shall say that souls shall survive, or what survival means in the crude language of our anthropomorphic thought? If it be unscientific to affirm a future and therefore unknown state, it is equally unscientific to repudiate it, at the present stage of knowledge—which is negative, not positive. Experience, precluded from prophecy, can only prognosticate; but the metaphysic of Experience is, so far, self-destructive—and necessarily so.

It is not contended here that the Universe exists only for man, or even that man is the highest product—but only the highest *known* product—of Nature. In our objective outlook on cosmic phenomena, we regard man as so imperfect and limited in his attributes and functions, that it becomes a necessity of scientific instinct to postulate higher types of thinking and self-conscious beings as inevitably existent in other spheres. Given eternity and infinity, we cannot actually determine any stage in cosmic evolution; but it is evident that, by reason of its imperfection, our own is a very rudimentary extension in the Realm of Thought which we posit as the Attribute of

[1] By *intuition* we mean 'a truth discerned by the mind directly and necessarily as so: a truth that cannot be acquired by, but is assumed in experience.'—*Annandale's Dictionary.* (There are worse Popes than Intuition I.)

God. Spinoza's conception of God as 'Substance consisting of infinite Attributes' helps us to realise that the attribute of Thought may not be the highest—not that there can be any actual measure of absolute perfection[1]—but a relative stage in psychic evolution. If a complete synthesis of cosmic phenomena could be thrown on a screen by a biograph, the various phases of evolution would blend into a perfect unity; but, examined separately, each stage would be finite and imperfect. So it is with our outlook on Nature: since we know no higher attribute than thought, we cannot imagine, though we may vaguely conceive, a higher to exist: perhaps 'something commensurable with feeling,' or sensibility to spiritual motion? Perhaps psychic love? As a concept of pure reason, *absolute perfection* demands every possible extension, idea, mode, or attribute as necessarily existent at one and the same moment of time, the parts of the Whole possessing merely a relative value, each to each.

When system falls upon system, in cosmic devolution, and when, finally, all ponderable matter in the Universe becomes reconverted into imponderable substance, there will still remain the cosmic matrix—that centripetal *focus of all energy* (Force) which is the origin of all substance—thus completing the cycle of eternal motion. The mind stops at that, but not before: it can only repeat itself in a vicious circle of closed Thought. *We think so.*

[1] Sir Frederick Pollock, in his luminous work on *Spinoza*, says (p. 164): 'Hence, all the Attributes except Thought are really superfluous; and Spinoza's doctrine, when thus reduced to its simplest terms, is that nothing exists but thought and its modifications. Feeling, or something commensurable with Feeling, is the only unit and measure of reality. The ultimate elements of thought are not merely correlated with the ultimate elements of things; they are the elements of things themselves. For, when the principle of continuity is once admitted, there is no need to assume any other. And this view, strange as it may seem at first sight, may be arrived at by divers ways. It may be reached even through the notion of a thing-in-itself or substratum of phenomena; and Kant was on the very point of thus reaching it, but left it aside.'

III. METHOD

Since all knowledge is a synthesis of relations, and the mind cognises what is perceptual in Nature, the law of thought and the law of evolution follow parallel lines of development, as between Subject and Object. If the results of analysis agree with those of epigenesis, these must accord with actual results, even though incapable of direct proof, as a necessity of reason.

Haldane says: 'It is by means of hypothetical and abstract conceptions that we are able, not to describe what we experience, but to isolate in thought such aspects of it as we wish to bring into clear knowledge, for the purpose of extending that knowledge yet further. The test which we accept of the legitimacy of the conceptions is the correctness, as shown by subsequent experience, of the concrete results to which they guide us. The conceptions themselves we cannot and do not seek to verify.'

Herbert Spencer remarks: 'If mental phenomena conform to fixed laws, then, an unusual skill in choosing true hypotheses means nothing else than an unusual tendency to pursue that mental process by which true hypotheses are reached; and this implies that such a process exists. . . . An assumption may be legitimate if the reasoning based on it, by bringing out a result congruous with known truths, prove the assumption true.'

Moreover, Hegel claims that 'Subjective logic is identical with objective reality.' Indeed, as Haeckel himself concedes: 'In a thoroughly logical mind, applying the highest principles of equal force in the entire field of the Cosmos—in both organic and inorganic Nature—the antithetical positions of theism and pantheism,

vitalism and mechanism, approach until they touch each other. . . . We may therefore express a hope that the twentieth century will complete the task of resolving the antitheses, and, by the construction of a system of pure monism, spread far and wide the long-desired unity of world-conception.' Haeckel, however, carries nominalism to the point of absurdity: the world to him is a classified catalogue. The antithesis of Haeckel is the *idea* of Haeckel. Nevertheless, he has the cosmic mind; and we are greatly indebted to him for his brilliant *exposé* of monistic philosophy.

To name a thing is not to create it, but to identify it. Consequently, nomenclature plays an intrinsic part in the discussion of phenomena. The thing-in-itself has as many *aspects*, and therefore *names*, as it has phases in motion (*continuum*) in the constant flux and efflux of substance: it is at once the aggregate and the ultimate reality (or unity) of both. We have, therefore, to invent noumena to embody *basic principles*,[1] which alone should characterise the thing-in-itself—terms which, in this sense only, are metaphysical abstractions: but, since the fundamental laws of thought and substance are identical (*i.e.* co-existent and co-extensive), these noumena may be said to possess objective reality. Thus, the non-Ego is the objectivity of the Ego, as is the macrocosm of the microcosm: thought and force alone emerge as the substantive attributes of mind and matter, and these are but two aspects of one and the same principle in our psycho-physical parallelism.

Force, in the abstract, denotes the Absolute: we cannot see beyond it, but Logic permits us to posit a Subject for

[1] In the philosophy of Leibnitz, all contingent things are infinite unities. *Cf.* Russell's *Principles of Mathematics* (p. 145 *et seq.*): 'all the infinite wholes with which we shall have to deal are aggregates of terms.'

an Object.[1] Force is the prime fact of human cognition, the so-called First Cause (or antecedent) of all mass-motions in the ether and of all phenomena in Nature: it is the fundamental dynamic law of the Cosmos. Nevertheless, it is a metaphysical term, since it can be conceived to exist only as a potentiality, dependent for its activity on a substratum of substance; but, like the theory of molecular structure for the biologist and that of the affinity of atoms for the chemist, it supplies a working hypothesis for the physicist, who accepts it, as he accepts the theory of the vibratory or the condensative movements of ether, in the form of a co-ordinating or unifying principle that may be held as valid until a better term can be found to correlate and contain the active agencies in Nature. *In general terms, Force may be defined as a state of energy determining a mode of matter or motion in mass by centrifugo-centripetal action.*

We are therefore constrained to recognise force and substance as two aspects of one and the same principle in Nature, or as noumenon and phenomenon, and to regard motion as the inherent property of matter. Electricity itself may be a mode of motion, atomic in structure, and turn out to be the basic element of all phenomena. The infinitely attenuated and imponderable substance called ether may be defined, then, as the elemental or potential state of energy, in contradistinction to ponderable matter or mass. Whether a more remote mode of substance, or *Urstoff*, be demonstrable, is a moot point: the unity of affinity in Nature is established beyond question.

Since, in order to satisfy the universal demand for causality, we postulate an all-perfect Deity, we regard this

[1] It will be observed that, in presentation, the Subject is potential and the Object is active. The Absolute, therefore, is potential Force; but, like Thought itself (its correlative), it is both Subject and Object in one, as an essential unity—analogous to the convexo-concave attribute of a circle.

Potentiality as the Absolute, without which there could be no independent standard of right and wrong, good and bad, or any extraneous measure of comparison: man would be a law unto himself.[1] In this universal standard, the law of organic evolution follows a median line between excess and defect in all things. 'Nature,' it is said, 'always averages right.' Her whole purpose appears to be to establish an équilibrium, or golden mean, by which evolution from a lower to a higher plane becomes possible to any selective and persistent force.[2] But evolution, if it had a beginning, must have an end; and since its beginning is in human cognition alone, its end must transcend empirical knowledge: it is, as we have said, comparable to a meteorite passing through the earth's atmosphere, visible within the range of our powers. Evolution, then, not to be a contradiction in terms, can have neither end nor beginning, except relatively: it is simply a phase within a closed system of thought. What lies beyond the range of our thought and the limits of our perception cannot be actually known: it can be predicated only by the reason, through the law of Continuity, but predicated with as much certainty as any other problem within the realm of thought.[3] Centuries have enlarged the boundaries, but at present we are still on the borderland of objective truth: we are restricted to the formula-

[1] Only the Absolute can exist in itself, for itself, and by itself; but, although self-existent and unconditioned, we take it to denote the All-perfect in subjective analysis: the Ideal Standard.

[2] Darwin, in concluding his *Origin of Species*, says:—'We can so far take a prophetic glance into futurity as to foretell that it will be the common and widely-spread species, belonging to the larger and dominant groups, which will ultimately prevail and procreate new and dominant species. . . . And as natural selection works solely by and for the good of each being, all corporeal and mental endowments will tend to progress towards perfection.' On our part, however, we assume organic modifications to be due to psychic causes, resulting in selection or yielding powers of adaptation to environment.

[3] Witness the discovery of Neptune.

tion of hypotheses. And our hypothesis, based on the centripetency of Force, amounts to this: *that the conservation of matter and energy is the objectivity of motion, and the extension of thought in substance is the objectivity of evolution.* Now, Love is the prime Objective of Thought, and God is the prime Subject of Love: therefore God *is* Love. In the words of Frederick W. H. Myers, 'Love is the energy of integration which makes a Cosmos of the Sum of Things.'

If these generalisations be admitted, the principle of continuity may be held to involve the persistence of psychic energy, as a free agent, on the disintegration of its nuclei of matter. The involution of energy, or thought, results in the evolution of power, or life. Nature is a *soul-mill*:[1] and, by resolving the antitheses, we obtain a perfect unity of world-conception, as between Subject and Object. If, in thought, we can isolate this cosmological unity, we may reach a stage of knowledge in which the barrier between the 'known' and the 'unknown' shall be broken down. And, in our view, this barrier can be passed only by evolution of psychic function in the fourth dimension of space, which is the natural *continuum* of the *psyche.*

Our transcendental theory[2] is at least thinkable and logical: it is even congruous with known truths: and though the borderland between the Natural and super-Natural may never be crossed, save by empirical speculation, it is within the bounds of reason to accept its

[1] 'Thought conceived to affect the matter of another [unseen] universe simultaneously with this may explain a future state.'—Anagram: *Nature*, October 15, 1874.

[2] We appeal to those who approach the problem of substance with an absolutely free mind, unshackled with the fetters of nominalism. We adopt the opinion of Mr. Balfour, 'that as natural science grows it leans more, not less, upon an idealistic interpretation of the Universe.' No interpretation of Nature can be rational, if it condemn its highest function to sterility, by consigning the soul of man to the dung-heap.

predications as postulates of truth. The super-Natural being the continued manifestation of the Natural, beyond the present range of human intellection, faith or intuitive reason affirms a logical extension of principle to constitute actual truth.[1]

Thought, then, is the Ultimate Reality and the substantive Attribute of God. To quote the words of Sir Frederick Pollock (*Spinoza*, pp. 167-8): 'Spinoza's Attributes are in effect defined as objects, or rather as objective worlds. But the general form of the definition disguises the all-important fact that the world of Thought, and that alone, is subjective and objective at once. The intellect which perceives an Attribute as "constituting the essence of substance," itself belongs to the Attribute of Thought. Thus, if we push analysis further, we find that Thought swallows up all the other Attributes; for all conceivable Attributes turn out to be objective aspects of Thought itself.' Not being an out-and-out Spinozist, as is obvious, nor willing to admit 'the inexorable boundaries of experience,' for reasons already assigned, we prefer to conclude with the dictum of Hegel (which, after all, is the characteristic feature, if not the very foundation, of Spinozism) that '*Subjective logic is identical with objective reality.*' This must be so, if the Law of Thought and the Law of Substance are correlated and co-une in Natural phenomena. In any case, it is better to be deluded by an ideal than to be 'killed by a fact'—even the 'self-evident' fact that Thought cannot be proved to exist apart from the organs of Thought, because we can always

[1] The known and the unknown, the Natural and super-Natural, are correlated terms: they complement one another, in the ratio that decrease of the one demands increase of the other. Thus, objective truths are a variable quantity; but subjective Truth—being the embodiment of eternal principles—bears a fixed ratio to the Sum of Things. If, then, there are relative truths and absolute truths, the latter become axiomatic when found to conform to the standard of perfection. *Veritas prevalebit.*

appeal to the 'organist.' [O foolish bellows-blower!—to set up your science against the arcana of Nature and the miracle of man! The immanence of Law is the music of the spheres and God's *expression* in Nature.] 'Science,' as Professor Stokes said, in his Presidential Address to the British Association at Exeter, 'can be expected to do but little to aid us here, since the instrument of research is itself the object of investigation.' *It is so.*

Had Spinoza lived in these days, he might have been able to establish the formal part of his system which his able commentator, Sir Frederick Pollock, regards as 'a magnificent attempt at an impossible symmetry of the universe.' The present paper is a mere footnote to such an attempt. Being a very incomplete synopsis of a cosmology of unity on which the author is engaged, his *ex cathedrâ* form of presentation may be partly accounted for, if not excused.

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**** *The Author will be indebted for any criticisms that may be offered. Address—'Royal Societies Club, St. James's Street, London, S.W.'*

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