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# THE BIBLIOTHECA SACRA.

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## ARTICLE I.

### THE PASSAGE FROM MIND TO MATTER. ✓

BY PROFESSOR JACOB COOPER, D.C.L., LL.D.

#### THE PROBLEM OF PHILOSOPHY.

THE passage from the world without to that within us is the problem which in some form has ever confronted philosophy. The impossibility of two apparently disparate powers acting on each other is disproven by the fact of their constant interaction, which is the basis and indispensable condition of all knowledge of material nature. The common-sense of mankind is in accord with that philosophic view, which has generally prevailed since men began to examine their own thoughts, that there are two sorts of being in the world,—Mind and Matter; for this Dualistic theory agrees with phenomena, and requires no effort to accept because it appeals both to sense-perceptions and the deductions we derive from them. Consciousness reveals to us an agent which we call ourselves. This receives impressions from something without which we know to be different from the Ego both in position and mode of action. The mind, acting on these sense-perceptions by a power which belongs to itself, discovers the modes by which this external something acts upon it, systematizes these modes of action, terms them laws of matter; and in

turn employs these laws to gain insight, in order to control that part of the world with which we come in touch.

While the Dualistic view has been the prevailing one, there have been many profound thinkers who held to Monism, i.e., that all Reality is one. On this theory the apparent difference between what are called mind and matter does not at bottom indicate diverse essences, but the same under different manifestations. But this view as held hitherto requires a diversity in the mode of action so great that it involves virtually the same Dualism as the other, which recognizes two essentially different agents. For there is necessarily a passage from one factor to the other, a bridge to be crossed of equal width whether the factors which act on each other are disparate in their nature or only in phenomena. For one is active, the other passive; the one conscious subject, the other unconscious object; the one commands, the other obeys; and, in order to effect this, there must be a passage from one to the other, whatever be the space between them. In the strictest Monism of Sankhya philosophy, according to which the outward world is wholly illusory, the phenomena which the mind perceives are not the mind itself, but impressions conveyed to it by the "five gateways of knowledge." It is evident that such an explanation of Nature is a paralogism. For, if there be illusion, there must be something to cause, and something to receive, the illusion; if there be gateways of knowledge for even deception to enter, these must come from somewhere and be caused by something. For, if the mind deceived itself, the deception could not come through any gate. The senses would have no office in the bringing of illusion; the mind would have nothing to interpret but its own thoughts; and any other knowledge than of the mind itself would be impossible. It is therefore undeniable, that, according to the strictest Monism, the mind is the actor, and the phenomena, no matter how illusory,

are the materials acted upon; and the two must in some way be brought together.

#### GREEK PHILOSOPHY, DUALISTIC.

In the Greek philosophy, which is the highest exponent of human thought, however its speculations be modified, it was assumed that the mind is a factor which acts on something different from itself. This is alike true in the crass materialism of Democritus and the refined idealism of Plato. For, in the process of thought, the mind in some way acted and was acted upon, which implied two agents or factors. If they were both material, they occupied different spaces; if they were spiritual, one was in so gross a form that the other could never act properly until it got completely free from its trammels.<sup>1</sup> So, in every conceivable interpretation of sense-perception, consciousness reveals a distinction between that which makes the impression and that which receives it; and hence the problem still confronts us, how to explain the mode of this inter-communication. This is the stumbling-block standing at the threshold of all speculation, demanding some explanation, or compelling the admission of ignorance. None of the solutions from the dawn of speculation till the researches of Carpenter or Virchow, by their own confession, bring us any nearer to that which is essential in the process. The explanations are in every case talking round, rather than directly at, the question. We may enumerate the methods of treatment as follows:—

#### A. THEORY OF DUALISM.

Those made on the assumption that mind and matter are diametrically opposed; not differing in degree merely,

<sup>1</sup> Plato, Phædo, 80 E.; 81 A. St., εὐν μὲν καθαρὰ ἀπαλλάττηται, μηδὲν τοῦ σώματος ξυμφέλικουσα, ἄτε οὐδεν κοινωνοῦσα αὐτῷ ἐν τῷ βίῳ ἔκοῦσα εἶναι, ἀλλὰ φείγουσα αὐτὸ καὶ συνηθροισμένη αὐτῇ εἰς αὐτὴν—τοῦτο δεοῦδὲν ἄλλο ἐστίν ἢ ὁρθῶς φιλοσοφεῖν, κ.τ.λ.

but having nothing in common. This is distinctively Dualism; and gives us at least the satisfaction that we can see what is attempted; that is, to explain how things utterly opposed can have any commerce together. For it is known, by constant experience, that this does take place; and this fact is a perpetual challenge to explain how and where this is effected. Four different theories have been held, to explain this process: 1. Occasional causes, or the direct intervention of God in each act; 2. Preëstablished harmony between the actions of mind and matter; 3. Plastic medium; 4. Physical influence. But these all fail at the very point where an explanation is needed. They profess to tell what causes the interaction, but not how it is done. The difficulty, or rather impossibility, of a solution from this point of view has led to Monism; which, very often, has been expressed in the form of pure Materialism, where the process of sensation and its elaborated product, thought, are explained by mechanical means, without any potency or action existing anywhere apart from movement among the particles of matter composing the compound organism. While there are motions among the molecules of the brain, they are automatic; wholly spontaneous in receiving and acting upon sense-perception in the elaboration of thought. Consciousness seems to testify that sense-perception is the result of action by external nature upon our bodily organism. That there should be a consciousness is, however, surreptitiously assumed by the materialist, because it is contrary to our *a priori* conceptions and our whole experience, that matter can think or move itself. Another agent is imperatively demanded. It is only by doing violence to words in their common acceptation as the vehicles of thought, that we can conceive a machine to move itself. Pure material Monism is the folly of perpetual motion, the *bête noire* of science, called in for the explanation of mental action.

There is no analogy discernible from experience which permits a resolution of the thinking process into the independent action of matter to achieve a purpose. For all physical science deals with the application of force by an intelligence acting *ab extra*; and assumes matter to be merely the instrument through which it is transmitted or applied.

#### B. THEORY OF MONISM.

In the forms of Monism, whether we view it as denying the reality of an external world, as taught by the Indian and the Chinese philosophy, or the pure Idea of Hegel developing itself, a similar difficulty occurs. It denies our experience, and does violence to our common-sense. We are quite as sure of our material organism, as an instrument of action, as we are that we can think, will, and direct our energies to a definite result. For how could we influence our bodies to action, and achieve our purposes through that action, from the simplest bodily movement to the most complicated results of science, if these material organs did not exist? The result achieved demonstrates the certain existence of the factors employed. That there are two factors always necessary for action, i.e., the machinery and the power to propel it, is undeniable; save by such a subversion of our modes of thought and action as would prove the postulate of agnosticism to be absurd, by its efforts to establish its own doctrine. And that these two act in concert, so that the one is the agent of the other, is unquestionable. How nearly alike must be the material and the immaterial, if they are different, is seen in the close resemblance between the animal life and the power of thought. But still they must, in their present constitution, be different, even if they are not disparate; as may be seen in the case of the idiotic, who have the one factor in complete activity, while wholly destitute of the other. So, again, from disease or other sources of bodily weakness,

the physical may be reduced almost to zero, while the mind is active as ever. Certainly we must admit that this sensual power of action does not correspond, but is frequently in inverse ratio. But, as there is always some partnership, some interaction, as a condition of life, there is an apparent bridge on any system of perception which has ever been advocated. When the last word has been said by Tyndall, Dubois-Reymond, and Virchow, that the metaphysics of the mind is as far from explanation on any psychological movement of cells or automatic action of matter as when the subject was discussed by Democritus, we may be sure that the manner of this metaphysical and physical interaction is yet a Gordian knot.

WHERE IS THE POINT OF TRANSITION BETWEEN THE  
MATERIAL AND IMMATERIAL?

Strenuous efforts have been made by psychologists to locate the mysterious point where sensation passes over into perception. General consent fixes upon the brain as the ganglionic head-center which the information derived from the senses reaches, and where it is changed, by some new and different process, into immaterial thought. The particular part of the brain where this wedlock of mind and matter produces issue has been diligently sought. The Pineal gland has been fixed upon by some speculators, while others thought they had found its seat in different places. But it is scarcely necessary to say, that all their efforts have been absolutely fruitless, except to make the ignorance of psychology more manifest by renewed failures. The results are not a whit more satisfactory than the crude physiology of Homer in making the midriff the seat of the intellect, or the general consent of the classical world which made the viscera—bowels—the seat of the affections. They are but gropings in the dark, the efforts of inquiring minds to satisfy themselves by trying to local-

ize the action of the immaterial in the same way as we do the material instrument. If we proceed on the theory that mind and matter are entirely disparate, and yet that they do meet and act on each other, it is entirely natural to think that the mind must be confined somewhere within the extent of that body which it uses as its means of phenomenal action. This appears rational at first sight, on the principle that nothing can act where it is not; which statement must be clearly defined before we can pronounce on its validity. For, as the mind seems to be indissolubly connected with the body, and to direct its movements whenever they are rational and purposive, it would follow that the mind is somewhere, if not everywhere, within it. Few, perhaps none, will be found to question the substantial correctness of this view, whether they be materialists or idealists; whether they believe that the so-called activities of intellect be merely the movement of the molecules of the brain and nerves, acting without any power save what their uncaused and undirected action generates; or these molecular movements are excited by the action of an immaterial principle, and they are only the phenomena marking the presence and degree of power caused by a metaphysical energy,—in either case that which we call mind is localized within the bounds of the bodily structure.

#### THE TRUE THEORY OF PERCEPTION.

It is just here that we take our point of departure: modestly, as befits one who advocates a view at variance with the whole course of speculative thought, yet with a confidence, which results from conviction, that the new hypothesis will account for a greater number of facts, and encounter fewer obstacles, than any other theory. That there are obstacles in the way of any hypothesis when first broached follows from the nature of the case. For, if it encountered no obstacles, it would not be new, since it



would already have adapted itself to the accepted ideas of mankind, and to call it new would be a contradiction in terms. Besides, there could be no theory devised which would explain every fact connected with it, because, in a universe, every force or particle of matter influences all the rest; and to account for the mutual action of each factor in Nature would require omniscience. With these caveats, not as an excuse for venturing upon an entirely new path of speculation, but acknowledgment of its inevitable difficulties and the probability of objections which may be raised, we proceed to our new theses.

I. The mind cannot be localized. It is not confined in its action by the limits of time or space, nor bound by the chain of causality.

II. It is omnipotent and omnipresent in a relative sense; which, without involving any contradiction, is the condition of every finite thing—omnipotent within the sphere of its power, omnipresent within the extent of its action.

III. Mind and matter are one substance, differing only in the relative subtlety of their composition, and are transferable into their equivalents without loss or limitation.

IV. Therefore, they act on each other directly and immediately, and no bridge is required for them to cross.

#### I. THE MIND CANNOT BE LOCALIZED.

Those holding the theory that mind and matter are diametrically opposed in their essence, have made most strenuous efforts, as has been noted, to localize the former. But these attempts have arisen from a misapprehension of its real nature. For, according to the commonly accepted view, it is not subject to the conditions of matter. It cannot be apprehended by the senses. It submits to none of the standards of weight, measure, or physical power. Except as it knows itself intuitively, it can be apprehended only by the phenomena it causes; and in this fact shows

itself akin to all power in its essential nature. It is meta-physical—that is, above, beyond Nature, which is disclosed to us by mechanical means. If it had any of the attributes of matter, it would certainly submit to some of the tests by which the material world is made known to us. But it persistently eludes every effort to seize or retain it. Even physical force, which is so subtle that it can be known only by what it does, and not what it is in itself, can in no way interfere with the mind's action. For it laughs at bands, and rises superior to sufferings and death. Nor has a single one of the properties by which matter can be grasped any resemblance, as far as we can discern, to the essence of mind. And it will not do to argue from our ignorance and say, Because we do not know any other way of measuring its essence than by material standards, therefore it must be estimated by them.

But it may be said that the mind is somewhere in the body; else it could not employ this as an instrument of action. This is true, if we confine its action to those influences which it exerts through the material organ. Material phenomena must be produced through the agency of material organs, in order to be apprehended by any of our senses. But our senses do not measure force; only its results. We have not the least conception what force is *per se*—where or how it acts. We cannot tell how a blow is transmitted through a bar of iron from the place of impact to that where it acts upon another body. How does the electricity pass from the dynamo through the wire to the machinery it sets in motion? How does the current gathered by the battery move through the cable, bearing with it the energy which elaborates intelligence after passing under seas and over continents? Is this energy in part of the wire at one time, or in all of it simultaneously? So, when mind employs a material organ, as far as that organ is concerned—its action is localized and rendered phenom-

enal, for the apprehension of some other mind which, in a similar way, is rendered local. We see that one mind becomes confined in its action for the sake, not of another which is free from spatial and temporal conditions, but of one which is localized like itself. But this does not tell us where the force is in itself.

FORCE NOT CONDITIONED BY SPACE.

We gather up electricity by the dynamos and store it, in order to serve us by acting through material agents to supply our material wants. This energy as it exists free in nature does not show itself to our senses. When it is confined or localized by allying itself to material, whether in the raindrop or the evolution of heat by motion, then it may be so concentrated that it seeks to free itself in the lightning's flash, or by dissipation through the machinery which is effecting its appointed task, and so return to its normal condition of invisibility and intangibility. The electricity exists before it is gathered. It is not really generated, though in loose language we thus speak. It is imprisoned by a kindred subtle influence, the mind of man, when it makes its place and quantity manifest by its action through material instruments. What if the mind is connected by speculation with the nerve matter in the head? As a force it must have been somewhere before it became manifest through the vibration of the brain molecules. For, if the doctrine of the Conservation of Force be true,—and no law of science can be better established, either on *a posteriori* or *a priori* proof,—the mind, like any other force, for it is assuredly a force, whether viewed as mechanical by the materialist, or ideal by the metaphysician,—then the quantity of force exhibited as a mental power has never been increased or diminished. This force, then, existed free in the universe, and became to a certain extent localized when joined to its material companion. It is a

prime condition of a world of sensible phenomena, that force should act through a material medium, in order to be apprehended by material organs. In this sense we are justified in attaching mind to matter, and so localize it, in order to confine its work, and render it subject to the conditions of a material world. Hence the mind as a force antedates its union with a material body; and, according to an inborn belief in human nature, as well as the teachings of every form of that which purports to be a revelation from a higher wisdom, it will survive the dissolution of the compound, and be henceforth untrammelled by any conditions of locality. But whether we be materialists or idealists, it is equally necessary that what is known as mental action be through material organisms; and when these work, the power that propels and guides them must be where they work, provided their activities become phenomenal.

BUT FORCE MAY BECOME PHENOMENAL WHEN LOCALIZED.

But this is a condition of their union, and does not disclose the action of either *per se*. The body acts in a certain way while life lasts, and is directed by intelligence. When the severance we call death takes place, the materials of which the body is composed come at once under other forces, which begin disintegration. Hitherto the phenomenal action was integration through organic action. Now all is reversed. Some change has taken place which the materialist is bound to acknowledge. There is some kind of movement among the cells of the brain and all the rest of the body. There are forces at work of a very energetic kind, but wholly diverse from those manifested in life. Hence it is most emphatically clear that the power which previously controlled is no longer in any part of the body. For factors of an entirely different character are now in possession of the workshop, and acting

with such industry and efficiency that very soon there is no organ which the previous tenant could use, were it to return. Some power has departed which acted through this organism hitherto. Now if the doctrine of the Conservation of Force be regarded as a scientific truth, that force called Mind is, at all events, no longer localized. It is still a force, but set free from all material trammels so far as its previous habitation is concerned. It can doubtless exhibit its power in ways appropriate to its new order of existence, but it no longer submits to the testimony of our senses.

#### FORCE DIVERSE IN ESSENCE AND IN MANIFESTATION.

We must never forget that force is one thing in its essence and another in its manifestations. The latter are the result of material agents in action; and, in order to act in such a way as to be grasped by the senses, they must be employed by some material instrument. But they must exist *per se* before they can be made to manifest themselves through mechanical appliances. Electricity, heat, any of the mechanical forces, must exist before they are appropriated by the material agents through which they do their work under man's direction. The wire at one instant holds no electricity. Again it is charged by a battery. This power then is transferred, and there is a condition for phenomenal action. The force is stored somewhere in the wire for work, but cannot be localized further than this; for it will act from one part of the wire as well as another, provided this be of uniform material and make. And that part of the force which escapes—for it is a significant fact that all power which is collected and temporarily confined for use seeks to escape—reunites itself with that unlimited quantity which is free in the universe. This force in its essence, therefore, cannot be assigned to any part of the conductor or instrument through which it

is used; but in this limited sphere is omnipresent. The time required for its transmission depends upon the material through which it moves. Its own motion seems to be instantaneous, provided it is not impeded by the medium of transmission. We can see this hypothesis verified in the case of gravity. This acts in all directions alike; is instantaneous in its movements, or so nearly so that our senses can detect no interval. By analogy derived from such experiments as bear most directly on the case, we are assured that both heat and light act in every direction alike from their source, and that it is only the material through which they are transmitted that hinders them from acting at all distances, to which their power extends, at once. Like to the essence of material forces is the action of mind. It can be conceived as entirely free, or impeded by the obstruction of the medium through which it acts. By itself it requires no time.

#### PSYCHICAL FORCE NOT CONDITIONED BY TIME.

The experiments of physiology, which tell us that time is required for the transmission of intelligence through the sense organs to the brain, and then to be quickened into mental action, all go to prove that it is the material which requires time for the manifestation of the impression which is conveyed to the mind and changed into thought or action. The afferent or efferent nerves are parts of a material organism which acts in time and space; but experiments in psychology go to prove that the mind itself is subject to no such conditions. We can think at once of any event, how far soever it may be removed from the *now* and the *here*. The geologist tells us of an age in the world's history when its whole material was star-dust or incandescent gas. We can place ourselves at the point to view this remote period as quickly as we can portray a scene enacted but a moment ago. The whole time in fu-

ture, as far as our powers can conceive, may be placed before our thought in like manner. So that it is clear that in the matter of time the action of the mind is in no wise affected by the interval between that which is remote and that which is near. So, as to space, psychical action *per se* is not confined. We can place ourselves in thought in an instant upon a star so remote that the light which started from it when Adam was placed in Eden has not yet reached us. Hence, as thought is the appropriate work of the mind, we see that its power when it works alone is wholly free from space and time conditions. And in this respect it seems to be akin to all pure power, no matter what modification this may assume. Their action is kindred; which fact argues an identity in essence that can manifest itself in unlimited applications.

INFORMATION FOR A MATERIAL AGENT MUST COME  
THROUGH MATERIAL MEANS.

It is an undoubted fact that we gain information from the five or more gateways of knowledge. And, as these act through an organism for the manifestation of a life composed of two factors, so long as they compose an unity for work, the one will, so far as that unity has a purpose, be dependent in some measure upon the other. Science is built up by experiment, and this means that the mind elaborates the information gained in this way into reasoned truth. As an organism, which, for the period of life, is subject to material conditions, and which achieves results through material means, the soul and body conspire in mental action. There is undoubtedly coöperation, and therefore there must be an interchange of signals between the two factors which are necessary to the action of a material agent. But the question now is, whether this is not the result of our dual constitution, and the consequent necessity that the power, so far as it acts with the material

agent, be subject to its limitation. The stronger power must condescend to the weaker in their interaction. But can they not to a degree, even during their union, act separately? There are unconscious bodily functions which go on without assistance from the directing intelligence. There are grosser appetites which may be placed on a par with the functions of mere animal or vegetable growth. There is a perpetual conflict between the desire of the spirit to be pure, and the body to minister to its impure appetites. So there are, as we have seen, pure intellectual actions during which the mind is not in the least subjected to the conditions of time or space. In the higher forms of reasoning, as exemplified in dealing with abstract conceptions, or the first principles of all sciences, the mind acts without being dependent upon the functions of sense. The more subtle and recondite be the processes, the less do they need information or suggestion from the movement of the senses. Pure *a priori* conceptions are undoubtedly the result of the mind's independent power; for no action of the senses can furnish a mathematical axiom or a universal logical conception. To arrive at such the mind acts entirely by its native strength, and shows its ability to attain unaided those fundamental truths which lie at the bottom of all our knowledge. It was the life-work of Kant to establish the truth that the mind possesses this power, and by doing so he cut up pure sensational philosophy by the roots, and silenced for all time the sophistries of Lucretius and Hume. Thus it is clear, that, if the mind can act by itself, it can act in one place or time as well as another; and is subjected to spatial and temporal conditions, only because it must be allied to matter in order to deal with material agents in producing phenomena. When the alliance with a material nature shall have served the purpose of discipline, for which the present life appears to be especially intended, then the separation will take place,



and the mind be free from the impediments of a carnal nature. But revelation<sup>1</sup> teaches us that it shall be united to another body suited to its enlarged capacities. That which is of the earth is earthy; but there are bodies terrestrial and bodies celestial. Physical science teaches us that there is no conceivable limit to the subtilizing of matter. So the pure spirit can be furnished with a body composed of matter so refined as in no wise to impede its movements. It can even be the identical matter of which the mortal frame was composed, yet so refined that it is no longer earthy, but spiritual and heavenly. Thus the doctrine of the resurrection—the stumbling-stone of the philosopher and the mockery of the scoffer—falls in naturally with the conservation and transference of energy, and can be a tenet of science as well as of religion.

#### THE MIND NOT BOUND BY THE LAW OF CAUSALITY.

In the matter of causality, unless we deny the direct testimony of consciousness, we are compelled to admit that the mind is a self-originating factor. No fact of intuition is clearer, no principle of morality more imperative. For, if it be subject to any force, it cannot be free. And, if not free, its actions can have no moral quality, and can form no element of character. The good or evil of actions with reference to their perpetrator depends entirely upon his responsibility; and this in its turn upon freedom. Freedom involves the power of choice in the agent; a self-originating force of such a kind that, when two or more alternatives are placed before us, we can choose which we please, regardless of the motives offered either by desire or reason. Otherwise there could be no responsibility, no virtue nor vice, in the character of man. For it would not be built up by him, but by the forces which constrained him to act in a certain way. Either, then, the mind is independent

<sup>1</sup> 1 Cor. xv. 40, 44, 48, 49.

of the chain of causality, or there is no moral character in man; and, consequently, no difference between the bad and good. Rewards and punishments are equally wrong. Codes of laws are folly, and judgments passed upon conduct a mockery. Hence there would be no incentive to virtue, and should be no punishment for vice. The consciousness of each man, the constitution of society, and the discipline of this life as a preparation for another, are utterly false and meaningless.

#### THE OMNIPRESENCE OF MIND.

Again: It is the nature of force to act equally in all directions, unless it be controlled and applied in a specific way by some material agent. This is seen in all the great forces of Nature,—gravitation, heat, light, electricity, magnetism. So far as common experience or the tests of science enable us to judge, we find that all forces project themselves out from their source alike in all directions. They may be deflected from the radial movement, and the fact that they are, gives rise to most of the phenomena of Nature. But when they are unimpeded, they move with equal facility and force in all directions. Moreover, every force strives to exert itself in proportion to its strength. All life consists of motion, and therefore all Nature may be considered as some huge living creature expanding, developing, itself in every way alike. The mind in its action resembles all other forces in this respect. It acts immediately and most strongly nearest to where it is exerted. Hence force of character, whether virtuous or vicious, tends to make itself felt on its vicinage just in proportion to its amount. There may be hindrances which deflect or tend to check; but still the effort is expended, though it remains latent in the body receiving it, which stops that much force; or it is transmitted to do its work on some other object. The force expended by moral charac-

ter may be received by others, but the inertia of vice be so great that the resistance is not wholly overcome, and no visible movement toward reformation be produced at the time. But the expended strength has gone out, as did healing virtue through the touch of the Saviour's garment, and is working like the forces of Nature; often for a long time in secret beyond the power of man to see, but getting things in readiness for an open revelation. Precisely in this way the mind works outwardly from itself, and directly. The great forces which control the world are not physical, but intellectual and moral. When there is much of these at work, the effect may be seen at once by the phenomenal result. The good man in a community is working silently, imperceptibly. The kingdom of heaven comes without observation; and so the influence of a man, working like leaven, from his heart outward, until it purifies his whole nature, and from him goes forth to renovate the world. It grows like the sown seed, whether men sleep and perceive not its growth, or are awake to its visible effects. The physical power of each man may be considered as substantially a uniform quantity, and the force which he can exert be measured accordingly; but the moral force he wields, or the knowledge he masters, is without limit. The dull intellect sees but little even in its immediate environment. It has eyes to see, and ears to hear, equal to those of greater genius. But it neither sees nor hears, except that which forces attention by its immediate presence. The powerful intellect, while it has no higher or wider gateways of knowledge, while it has not greater, often inferior, physical powers, yet masters all the knowledge around it. Such a mind, not by laborious experiment but seemingly by intuition, sees and knows everything. It is alive to all facts of Nature, and joins these together, elaborating new principles, opening up new lines of investigation. The faintest traces of Nature's movements are discovered,

and their meaning is understood. It is not by quickness of sense, but by the energy of intellect, which can see farther, can move faster, can take a firmer grasp. Its influence extends alike in every direction, and to every conceivable limit. The senses do not carry the mind there by their slow conveyances—it outruns them. The senses may expand their powers, but the mind anticipates their action, and gradually dispenses with their instrumentality.

MOST OF OUR KNOWLEDGE INDEPENDENT OF SENSE-  
PERCEPTION.

The greater part of knowledge, under any theory, is by intuition, without the mediation of material instruments. For somehow the mind grasps reality directly. It goes by its own way, travels at its own expense, and pays no toll to physical nature in the rapid results it achieves. This fact is clearly seen in all great inventions and discoveries. They are made by the mind coming in contact with that which is not given through the material sense, and which never could be marked by one who waits its slow movement. For imagination constructs an entirely new arrangement of the relations between things. This is in a proper sense creative; for it projects a working scheme, and discerns how the materials which have been furnished by the senses would act if placed in a new connection which it anticipates. By its power of combination according to the laws of Nature, which it discovers through its independent action, it perceives that an untried arrangement of ideal materials will perform a new work, or execute an old process in a better way. New inventions in mechanics, new mixtures of elements in chemistry, are made in imagination, and the result foreseen by what Bacon so well calls "Anticipations of Nature," and progress is made in the arts of life. But this fact is seen in a still more im-

portant sense in those cases where the intellect determines *a priori* what must be the course of Nature.

A PRIORI KNOWLEDGE MUST PRECEDE EXPERIENCE.

Scientists often scorn the *a priori* theories of those whom they ridicule as metaphysicians. But they should remember that Kant declared there must be a planet exterior to Saturn a century before astronomers discovered Neptune. And the discovery was made by Leverrier and Adams by directing their calculus and their telescopes according to an imagined condition of things made by the independent action of the mind, which conceived and figured relations which the senses had never known, and then proceeded to apply its intentional powers according to that scheme. There is a kind of prophetic knowledge displayed in philosophic thought, just as there is prescience in the mind of the real prophet. His thoughts are in sympathy with the truth. He looks far down into the roots of things. He leaves phenomena behind. He deals with ideas, the spiritual embodiment of physical forces. He is in communion with those laws which rule the world and shall be valid forever. He has discovered his kinship with the truths which underlie all Nature, and by obedience to them is enabled to interpret them to the world. He sees far ahead of his time, and voices the teaching of omniscience, which men will some day be able to comprehend. Plato in many things saw in advance of the position where Leibnitz stood two thousand years later in the world's history. Such men live before their time, as the proverb says. It would be more correct to say, They live in, and for, all time. The fact is that the principles which rule the world for all time, and in every sphere of being, have become a part of their mental constitution. They are prophets in the double sense of the word; they both speak for, and in advance of, other men. As Isaiah could see the future destiny of Israel

and the coming of the Messiah, even so these seers of thought and physical science divine the truth by living in immediate contact with it. They need no material instruments. They have a lens in the soul which can sweep the vast expanse of space, and extend their knowledge to the utmost bounds of time. This leads us to the consideration of the second Thesis:—

II. RELATIVE OMNIPOTENCE AND OMNIPRESENCE  
OF THE MIND.

The Mind is omnipotent and omnipresent in a relative sense, without involving a contradiction of its finite capacities. By this we understand that the mind in its circumscribed sphere is an epitome of that Infinite knowledge and power which both knows and can do all things. There is somewhere in the universe, or rather everywhere in it, both power and wisdom enough to provide its material, to insure its development, and direct its movements. Everything that exists does so by virtue of a "Sufficient Reason," the profound utterance of Leibnitz, who voiced by this terse formula the common-sense of every rational man. If there was not a sufficient reason for any being, it would not exist; and if there was not an adequate cause for a fact, it would not take place. This is axiomatic and requires no proof. It is the best illustration of the analytic judgment in which every man acquiesces as soon as he understands the terms. Therefore, as some Being must be capable of understanding everything as it is in reality, and wise enough to formulate its laws and direct their action, the knowledge must equal the content of Nature. To use the thought of Schleiermacher,<sup>1</sup> the content of Logic should aim at equaling the content of reality. This is the goal after which human reason is perpetually striving; but the understanding being finite, and the amount to be known

<sup>1</sup>Ueberweg's Logic (Eng. Tran.), Pref. 1st Ed., *ab initio*, p. 71 *et passim*.

infinite, there may be a gradual approach forever without attaining the goal. Now from this statement it follows, that if there is any knowledge which is true and reliable in man it must be exercised in the same way, *mutatis mutandis*, that Omniscience knows. If this Being knows in the correct way, and can embrace all truth, then any other being who can grasp any portion of this truth must know it in the same way. For if the finite creature knows it in any other way than as it really is, his knowledge is false; and therefore he does not have the apprehension of the truth. Infinite knowledge must comprehend directly all that is to be known. For in order to know, we must come into such relations with things that their real nature is disclosed to us. The Being who made all things, who arranged them in their relations with each other so as to form a system or universe, must know their constitution and control their movements. And if there are any other creatures who possess knowledge and exercise any power, they must do this in the same way, in their limited sphere, that the Omnipotent Ruler does throughout the whole. The finite creature can ally himself to the Infinite by acting according to the laws by which He governs the Universe. If "man is the minister and interpreter of Nature,"<sup>1</sup> this is possible only by being himself *en rapport* with her constitution and course of action; and this cannot be save by knowledge which comprehends her secrets, and moral character which unites him with the Framer of her laws. Each part of the universe, whether it be a system, cell, or organism, must be fitted to its surroundings so as to act and be acted upon in turn by all with which it is connected. This requires each part to be a necessary constituent of the whole, whose influence is felt throughout.

<sup>1</sup> Bacon, Nov. Org. i. 1.

ATTRACTION, LIGHT, ETC., IN INVERSE PROPORTION TO  
THE SQUARE OF THE DISTANCE.

This influence grows less and less according to the distance of removal, which follows of necessity, because it is extended over the increasing area. The wave grows less as the diameter of its circle increases; but its force is not lost even when it ceases to be visible. The particle of dust which floats in the air has its place, according to its magnitude, as surely as the earth or sun which holds it in its tiny sphere. Just so with finite mind. No matter whether it be the weakest, which rises barely to rationality, or the grandest intellect that illumined the life of Plato. Each is an intellectual force, influences according to the measure of its capacity, and can influence only in the manner it knows. For if it knows nothing of the mode of action around it, then it can do nothing except by hazard. In order to control any part of Nature however small, the mind must know its mode of action and adapt itself thereto. Otherwise there could be no purposive result. For we cannot succeed when we are at cross-purposes with the laws of Nature, which compel submission or insure destructions. Nor can we put ourselves in connection with her action except by first knowing her mode, and consciously following her lead.

The *a priori* conception of our mental constitution and the way we gain knowledge of the world around us agrees with the method revealed to us in the Word of God. If the mind of man be capable of knowledge, he must know in the only way that any intelligence can see the reality of things. His mind must be constructed in the same manner as the Divine Mind. We can know nothing about the modes of thought of a Being different from ourselves except according to the much-derided theory of Anthropomorphism. Hence, if there were no similarity between the thoughts of God and those of man, he could not communi-



cate with us in such manner as we could understand. Or if he thought contrary to the reality, then the knowledge we acquire from his revelation, or our investigation of Nature, would not avail us, for the reason that our content of knowledge would not agree with the content of Nature. There could therefore be no communication in either case, and hence no knowledge of Nature; and no control of her movements would be possible. Reverently speaking, God could make no communication with us if he knew things in a different way from what we do—not in degree, but in mode. He can know them only as they are in reality. For any other supposition would involve both ignorance and error; and hence he can inform us in no way except in accordance with that reality.

FINITE AND INFINITE KNOWLEDGE DIFFER NOT IN NATURE, BUT IN DEGREE.

Therefore, so far as we know the truth, we know it as he does; and we know it immediately. Let this statement be not misunderstood. It seems to conflict with experience and the universal convictions of mankind. For we seem to know through media. Only a small part of our knowledge is axiomatic, while we reason through the syllogistic process and facts of perception elaborated by the mind through its own antecedent action and that of others. But axiomatic truth depends on the mental caliber of the individual, and the general culture of the race. That which at one stage of progress seems difficult and must be gained by persevering toil, subsequently becomes so clear that it requires no proof. We pass at once through all intervening media, and apprehend the fact without a process of ratiocination.<sup>1</sup> The directness or immediateness of the knowledge depends upon the intellectual strength of the thinker; and this we may see carried to any extent. La-

<sup>1</sup> Ueberweg's Logic, pp. 94, 95, Eng. Trans.

place in many demonstrations of problems in his "Mecanique Celeste" says: "This equation follows obviously from the preceding"; but to the ordinary mathematician the process between would occupy a half-dozen pages of closely packed calculations to make apparent the result which was self-evident to the great author.

ALL JUDGMENT ESSENTIALLY ANALYTIC.

The immediateness of knowledge, then, is measured by that power of the mind to discover it by intuition as axiomatic, and elaborate the truth under the form of analytic judgments. The discovery of the middle term in the syllogism is undoubtedly by intuition. For no number of individual instances could ever warrant a universal truth on the basis of inductions from particular instances; and it is for this reason that all logicians with naturalistic leanings say that the process can never be more than probable. And hence the oft-repeated criticism that the syllogistic process is only a *petitio principii*; an objection which can be brought with as much justice against all analytic judgments. In truth, the conclusion is unquestionably contained in the two terms. If it were not there potentially, it could not be deduced from them. But what is there contained implicitly becomes manifest explicitly by comparison with a third term, which makes the agreement manifest. We admit the criticism against the syllogistic process. But it in no way destroys the validity of the logical method, or its usefulness as an organ: it only goes to prove our thesis, that in the last analysis of the mental process in acquiring knowledge the mind acts immediately. That every person can pass from one conception to another by comparison with a third without the intervention of any concrete factor, and does employ the process involved in Kant's formidable expression, "the concrete unity of Apperception," will scarcely be denied by any psychologist,

or that the increase of this power to grasp by intuition is measured by increase of intellectual vigor. The mind in this case acts simply *a priori*, and by its own resources, quite independent of sense-perception; coming, as it does, in immediate contact with reality. The feeblest intellect has its self-evident truths. It knows, though in a very circumscribed circle. The child in the cradle knows directly its mother from a stranger. Progress in mental vigor widens the circle indefinitely. Plato, Leibnitz, and Pascal grasped the whole content of human thought almost as soon as they directed their attention to any special subject. If the mind were absolutely omniscient, then all knowledge would be immediate, axiomatic, and require no proof.

PHENOMENAL KNOWLEDGE TRANSMITTED THROUGH  
SENSE-PERCEPTION.

But it may be justly asked, How does this theory agree with the known facts of physiological psychology? We undoubtedly know the external world through Perception. The five or more senses receive impressions from the outward world, and convey the information so received through the sensory nerves to the brain. This is transmitted in some mysterious way to the mind by that bridge which, according to the commonly received theory, spans the chasm between matter and spirit. In the case of one of the senses, vision, there is a picture of the external object made upon the retina, and we have reason to believe, in fact it is always taken for granted, that the excitation made by this picture is conveyed to the brain. In another case we know that the vibrations of the air strike upon the ear-drum, set it in motion, and this conveys the vibrating movement to the rods of Corti, which in turn affect the auditory nerve, and so the brain is brought into actual contact with the outer world through sound. Why this com-

plicated process unless for the transmission of the outer world to the inner? The same remark might be made for all the senses. The bridge seems to be narrowed to the passage from the movement of cells, or exquisitely fine tissue in the brain, to the mind which is thought to have its royal throne set somewhere here. For the response to the information received by sensation is elaborated by perception, and sent back through the motor and the efferent nerves; and so the mind crosses back by one of the passages of this double span, and gives its report through the organs to the outward world. These are facts so obvious that it seems needless to call them in question. But in reply we remark, that the length of the bridge between matter and spirit has nothing to do with the subject. If the theory founded on Duality in man is true, then the two natures are disparate, and the separation between them cannot be measured by the standard of either, since these as rules for measurement are utterly unlike. Material occupies space and requires time to act. Mind has no discoverable locality, and acts instantaneously, though psychological movement may be influenced by the inertia of the organ through which the power acts. The bridge between mind and matter, even if it be but the passage from the brain as the organ of its action to the immaterial force which is in it and acts through it, is quite as wide as though it were the diameter of the solar system. Distance has nothing to do with the problem. If we admit that the mind is confined either to the whole body or a part thereof, the journey would be as long, and the chasm as hard to pass,—admitting the two factors to be wholly disparate,—as though they held any spatial relation however remote. But the mistake is in conceiving the mind to be subject to any such relation. No psychology has ever located mental or physical power. Its work may be located, because this instrument through which it acts when confined, occupies

space and has position. So long as the body is put in charge of the mind, the information which is gained through sense-perception comes for the behoof of the material part which furnishes it. Pure intellect could not work phenomenally if it had no material instrument to manifest its energy, and the instrument must be cared for, as any other machine, by the superior intelligence of the mind during their union. So much knowledge, therefore, as is gained by sense-perception, and employed by the mind, is furnished exclusively for the action of the material part.

KNOWLEDGE GAINED THROUGH MATERIAL AGENTS  
NECESSARILY DEFECTIVE.

For this reason all knowledge gained in this way has imperfections, being limited by the hindrances of a material agent. Even Induction, however far carried, arrives at only a probable certainty<sup>1</sup> while it rests on the standards of sense-perception which cannot demonstrate an absolute uniformity of nature. But the mind when it deals with conceptions originated by itself arrives at absolute certainty, as witnessed by the reasonings of mathematics and pure logic. The mind, therefore, is not dependent on sensation for any knowledge except that which is necessary for the development and preservation of that organ of which it has the charge. This being material, must be governed by knowledge derived from a material source and employed in a phenomenal mode.

WHY IS THE ACTION OF MIND CONDITIONED BY MATTER?

But why, it may be asked, should the mind be subjected in its action to the conditions of a material body? Why must it get most of its information—materialists say, all—from sense-perception? Why should it have the wearisome task of reasoning by induction from facts gained

<sup>1</sup> Jevons' *Principles of Science*, pp. 149, 150, Am. Ed.

through experience, if it can acquire all through the short and easy way of grasping axiomatic truth or knowing all by intuition? It is certainly much easier to ask questions than to answer them. But we may reply, Why is the mind joined to a body in constituting a personality while man lives? Why must force act through material agents in order to work? Why not act directly, and get rid of inertia, friction, gravitation,—by which it loses half its energy? Why a material creation at all for the display of power and wisdom? Why especially the formation of our carnal bodies, which give us so much trouble to care for as to health; to feed in order to give them strength; and to restrain lest their passions lead us to ruin? Surely the mind could act with infinitely more efficiency if it were freed from the ills that flesh is heir to, even in a worldly point of view, to say nothing of our relations to a higher life. Such, however, are the conditions to which human life, in common with all the material universe, is subjected; and the reason of this is one of the secret things which belong unto God. But our business is to explain the mode in which the mind acts in gaining knowledge. The force which man exerts, whether physical or metaphysical, if the doctrine of the conservation of energy be true, existed before it was united to a body; and, by the same principle, will continue to exist after the body has been dissolved, and its power as the instrument of mental action is gone. We do not know why a material world was formed. For there must have been a time, even if we go no farther back than it is the delight of the geologists to take us every day, when the world was not in a condition to admit bodies like ours. Pretty much everything that then existed was in a state of vapor, very much like our conception of spirit, subtle, impalpable.

## PRIMORDIAL FORM IN WHICH MATTER EXISTED.

And if we in imagination go still farther back, and the process as witnessed by the geological ages, and especially in the historical periods, be reversed, we will eventually come to a time when this which at a later period is scarcely to be discriminated from spirit, was absolutely pure spirit as judged by any tests we can conceive. But when this pure power, energy, or spirit, was transformed and developed into phenomenal material, it must become subject to space and time conditions; and there arises a visible organized universe. There is not, however, any increase or diminution of that spiritual energy which must have existed during all the past eternity—only a change of form, so that “the things which are seen were not made of the things which do appear.”<sup>1</sup> It is the necessary condition of power exhibited phenomenally that it be through material instruments, and subjected to spatial and temporal limitations. Hence it follows, that any finite creature—and everything made must be finite—must have a limited power, and its perceptible influence extend to a circumscribed arc depending upon the amount it possesses. It can work within the limits prescribed by this amount, and the limit it prescribes to itself is possessed of self-originating activity. Hence the word Omnipotence, as used in this article, seems to be a contradiction, and certainly is so if taken in its strict meaning. But the signification intended by its use here is, that it can do all things without the possibility of successful obstruction within the sphere that it was appointed to fill; being therein limited only by its own voluntary action. If it be a portion of the absolute power which pervades the universe, and which can do all things without any hindrance, then the finite being is omnipotent within its sphere. Everything except God must be imperfect and subject to limitations *ab extra*; yet

<sup>1</sup> Heb. xi. 3. See the Greek.

they may be complete in that for which they were created. Hence the meaning we would attach to the omnipotence of mind is, that it can send out its activities and increase their efficiency in all directions, and without any cessation. "Plato's brain" appeared to comprehend all that men thought about during his eighty years' sojourn, and pretty much all that has engaged the attention of subsequent speculators. Whatever limits were placed to its activity did not arise from any inherent imbecility, but from the organ of its phenomenal action. Had the "fleshy nook," where that wondrous power of thought dwelt for a time, been more robust and longer lived, the mind would have continued to expand indefinitely. This may be said of each rational being.

THE MIND ALWAYS IMPEDED, NEVER AIDED, BY BODILY INTERFERENCE.

Whatever check it receives is from the physical weakness of the body with which it is for a time conjoined. The progress of knowledge in the individual and the race is checked only by the obstacles which are incident to a connection with a decaying organization. In this respect there is a marked contrast between all other species of power and that possessed by the mind. The other kinds are in definite quantities wherever they are manifested, and tend to diminution through use by exhaustion or dissipation. But the mind grows by use. Its growth is measured exactly by its use, and there is no bound fixed to its increment. The amount of thinking which an active mind can accomplish is almost incredible. Take such men as Aristotle, Grotius, Leibnitz, Gladstone. They seem to know and do as much intellectually as all the rest of mankind in their age combined. Yet why is this? Doubtless in part natural endowments; but in large measure industry and the possession of a healthy physique, which al-



lows almost incessant application. And when they become weary, it is the body, the brain—not the mind, for this grows stronger by use. There is, therefore, both theoretically and practically, no limit to physical action. It is omnipotent when it allies itself with the truth as expressed in natural law; and thus yields a willing obedience to the power and intelligence which rules the universe.<sup>1</sup> In the same modified sense the mind is omnipresent. Of course it is not meant that the mind can be present everywhere; either at any time, or during all finite time. This would require it to be equal to the Supreme Intelligence in capacity. What is held here, again, is that it is not confined in its action to any locality. It comes in contact with all around it, just in proportion to its native or acquired activity. The child's knowledge is confined to the limits of the mother's arms and the cradle. Through the senses, as physiology teaches, it reaches out to everything which makes an impression. Undoubtedly it uses the "gateways of knowledge" to go out beyond itself and explore nature.

#### DISTINCTION BETWEEN ORGAN AND THE POWER USING IT.

But here, again, we must sharply distinguish between the organ and the power. Epicharmus says: *ὁ νοῦς ἀκούει δρα, κ.τ.λ.* The organs of sense do not perceive a whit more than the optical lens, or the vibrating tympanum which the air sets in motion. The organ does its work of perception for the material agent. The impression is made on the retina, and carried by the optic nerve to the chief ganglion, and there, acting upon a material instrument, causes this to respond by a material activity. But the object does not come into the eye or the finger ends; much less into the delicate structure of the brain. It still remains fixed in its

<sup>1</sup> Nov. Org. Baconi, l. 129, "Hominis autem imperium in res, in solis artibus et scientiis ponitur. Natura enim non imperatur, nisi parendo."

own locality, which the mind by its own power determines, and correlates to the system with which it is connected. The bodily senses have nothing to do with the formation of knowledge, except to receive the physical impression. This impression, if we heed its declaration, says that the object is in actual touch with that which receives it. This may be seen in the case of young children, or adults who have been blind from birth but relieved by surgery. But the mind says they are removed, and fixes them in their places. The senses cannot go to them when they are remote, because they as material organs cannot leave their place. But the mind determines their relative positions in space. It therefore must come into connection with them to know where they are. If it were confined to the body, then the external object would of necessity have to come there also, in order to be recognized. These facts are patent without the possibility of gainsaying. The sense organs do not go away from the body to come in contact with the external object. This could not be, however near it might be to the physical limit of their reach in space, or to the present in time. But when perception reaches to those objects which are in the utmost bounds of the physical universe, or the farthest removed periods of time, the impossibility becomes more manifest. There is, however, practically no limit to the power of the mind in gaining knowledge in either sphere. It must then in some way come into immediate relation with the object which it knows. For if it did not, if it is localized in the body, and the material organ cannot separate itself from the nervous ganglion, then knowledge would be rendered impossible. For the organ could not go out to the external object, and this could not leave its place to come to the mind. Hence there could be no connection. Nothing can be clearer than that the common theories of Perception do not account for the facts.

## INEXPLICABLE SPIRITUAL VISION.

There are facts of Clairvoyance—not the folly of spirit-rapping and so-called mediums, but, as the word truly signifies, *clear seeing*—which are well established. Every intellect possesses this power to some degree. The case of medical men, especially their father, Hippocrates, in their ability to diagnose disease which cannot be explained by any physical criteria, is in point. So in men of genius in every pursuit there is a power of discernment which cannot be described in words or measured by any tests. The marvelous power of mental activity in times of peril, or in great crises as of Huss at the Council of Constance; of commanders in time of battle; of engineers and pilots coolly braving excruciating death to save those under their charge, shows the absolute control of the mind, and its power for separate action. The highly gifted mind sees everything with which it comes in contact, in its true relations. By an imaginative combination of these relations in forms which are new to men, but in themselves old as reality, the man of genius becomes the inventor, the painter, the architect, the poet, the leader in moral and philosophical movements. In discerning the great principles which underlie the phenomena of nature, material or spiritual, the senses have actually nothing to do. They see only isolated facts, and never can combine even those which are open to their immediate apprehension. This must be done by the mind acting independently by an *a priori* power of Apperception, as Kant so tersely calls it, which it alone possesses. And as to the underlying principles, the senses give absolutely no information. The spirit alone can lift the veil of phenomena, so aptly called *Maya*, "Illusion," by the Indian sages, and see the Reality, which is physical force and intellectual power. These cannot be in the material organism. For in that case it would discern only the individual instance, and could

never by itself separate from the concrete the underlying idea so as to make a general, much less a universal, principle, applicable to all cases. The sense-perception necessarily forms a separate representation, and never could rise higher than the individual experience. Hence the mind sees universal truths by its separate energy, and this is of the same nature as true clairvoyance when the mental vision is not subjected to space and time conditions. Without insisting on the well-authenticated cases where the mind has a clear knowledge which could not possibly be gained by sense-perception—such as those related of Swedenborg; the friend of Tennent when the latter was prosecuted and had no means of proving his innocence; and many others where valuable information was given about matters which it was impossible for the actors to know through physical means; or on the many instances in each person's experience where he has gained trustworthy information in matters of paramount importance to himself by deep and protracted reflection on a particular subject—we may say, in general, that the mind derives its most important truths by its own action independent of all sensible perception.

The ignorant and the vicious, moreover, have as much physical strength, the sense organs are in as perfect condition, as those of the saint or philosopher; and yet they retard rather than advance the world's interests. But the virtuous and the wise know the truths of morals and of physics, and can employ them for valuable uses. They can utilize them in what they are now doing, or project them into the future and see what their action will then be, because their minds have come into immediate contact with the laws, physical or spiritual, which will continue to govern the universe.

For the present the information conveyed by the senses is to be utilized by the mind for the service of both in the united organism, and while the two factors have interac-

tion each must contribute its share. The senses are furnished to convey information suited to their use; and, so far as is necessary for bodily action, this is conveyed through their agency, and therefore must be subject to spatial and temporal relations. But sense-perception has been proved by Kant and others not to be the only source or end of knowledge. For the mind does not gain its acquaintance with reality as contrasted with phenomena in that way. Man rises by virtue of his spiritual nature to the domain of absolute, of universal, knowledge of principles and truths which it applies *per se* to extend its dominion over nature. This kind of knowledge must be arrived at by the mind's independent action; and in proportion to this mastery which it gains over natural law the need of material factors diminishes. The constant progress in this direction indicates a future stage, for which the present is disciplinary, when the need of media, through which the mind now acts in part, will wholly cease; and it will see things as they are, and comprehend truth without any intermixture of error.<sup>1</sup>

We are therefore justified, by the facts and principles acknowledged either consciously or unconsciously by all theories of Perception, in asserting that the mind knows things immediately because it acts everywhere, and according to the measure of its capacity, in its own sphere. The knowledge conveyed by the senses and utilized through material forces is necessary for the use of the material organization, which is the partner of the mind during its sojourn on earth. But it is the mind, and not the body,

<sup>1</sup> Ἄρ' οὖν ἐκεῖνος ἂν τοῦτο ποιήσῃε καθαρῶτατα, ὅστις ἐτι μάλιστα αὐτῇ τῇ διανοίᾳ τοὶ ἐφ' ἑκάστον, μήτε τὴν ὕψιν παρατιθέμενος ἐν τῷ διανοῶσθαι μήτε τινὰ ἄλλην αἰσθησὶν ἐφέλκωυ μηδεμίαν μετὰ τοῦ λογισμοῦ, ἀλλ' αὐτῇ καθ' αὐτὴν εἰλικρινεῖ τῇ διανοίᾳ χρώμενος αὐτὸ καθ' αὐτὸ εἰλικρινῆς ἑκάστον ἐπιχειροῖ θηρέειν τῶν ὄντων, ἀπαλλαγεῖς ὅτι μάλιστα οφθαλμῶν τε καὶ ὠτων καὶ, ὡς ἔπος εἰπεῖν, σύμπαντος τοῦ σώματος, ὡς τὰρ τόντος καὶ οὐκ ἐώντος τὴν ψυχὴν κτήσασθαι ἀλήθειαν, κ.τ.λ. Plato, Phædo, 65 E-66 A. St.

which knows, and from its nature cannot be confined to any locality. It must be wherever the thing is that is known at the time of knowing, else knowledge would be impossible.

KNOWLEDGE BY ALL MINDS MUST BE GAINED IN THE  
SAME WAY, *mutatis mutandis*.

If there be mind in nature, and knowledge can be gained by it, this must be through a process which sees things as they really are, and not through sense-interpretation of phenomena. Hence, if there be a Supreme Intelligence, this must comprehend all reality in its essential nature; and if this Intelligence create or develop other minds they must, while necessarily inferior in capacity, know in the same way if they know correctly. This, the postulate of reason *a priori*, is also the declaration of what purports to be a direct revelation from God the Supreme Intelligence. This we accept and with profound reverence. We accept it both because it comes attested by all the evidence which a record from by-gone ages could possibly possess; and, also, because it witnesses its own credibility by its perfect adaptation to the wants of our nature and its effects upon the moral character and well-being of those who obey its teachings. This Revelation says that God made man in his own image,<sup>1</sup> a statement repeated for substance, *passim*, in the Holy Scriptures.<sup>2</sup> Wherein does this likeness consist? Not in bodily form; for God as a spirit cannot be represented by any material image, and he has most emphatically forbidden any attempts in that direction. The image of God in which man was made must consist in the likeness of spiritual essence, the intellectual and moral nature. This likeness exists in some degree in every man that comes into the world; and it is the work of probation and discipline, constituting the entire employment of life,

<sup>1</sup> Gen. i. 26, 27.

<sup>2</sup> 1 Cor. xi. 7; Col. iii. 10; James iii. 9.

to make<sup>1</sup> this likeness complete. In the case of the perfect man, the Exemplar, it was complete both in knowledge and holiness. Since it is admitted that God knows all things immediately, without investigation or reasoning, to render this possible he must be present everywhere, originating all things, directing their inception, progress, and completion; all these acts being immediate in that they are not subject to spatial and temporal relations. Therefore it follows that every creature "made in his own image, after his own likeness," must know as he knows in kind, but not in degree. There is a sphere of influence, wider or narrower, for every creature; where, according to its capacity, it knows, or can by effort know, all that comes within its sphere of action. The real knowledge which any one attains is to be certified to others by its work. But there is a deeper knowledge than this,—a knowledge of principles, of fundamental truths, which underlie all phenomena, and render these possible. This the mind grasps by itself. It comes in direct contact, in fact can arrive at those ultimate data which do not submit to experience, in no other way. This power all rational beings possess to a limited extent, but it is the prerogative of genius, and the coefficient which raises the ordinary powers up to those which control the thoughts of the world, and interpret nature in the present and for future ages.

While nearly all theories of Perception proceed on the assumption that Mind and Matter are disparate, so that there should be no commerce between them, yet this contradicts experience. For we see them, however disparate they may be, joined, and working together so as to constitute one personality. Yet it is certain that, on a strict interpretation of this doctrine, there could be no manifestation of either to the other without an intermediate actor. For matter of itself is inert. It cannot move; much less

<sup>1</sup> "Our wills are ours to make them Thine."—Tennyson.

perceive, think, or form judgments. And, though the mind can do all these, yet, unless it did them through a material medium, it could not show its work to others unless like itself. The spirit might think for itself, might exercise all the *a priori* functions which Kant and Hegel allow it, yet this would be only for its own behoof in a phenomenal world. It could not deal with anything but what was kindred to it, that is, pure spirit. But it is the condition of our life on earth that it be carried on by two factors acting in concert, as all other operations in nature which involve the material instrument and the metaphysical agent. So any other mode of action would not be possible under the conditions we find ourselves holding to other beings like ourselves, and the material world with which our temporary life is inseparably connected.

NEITHER MONISM NOR DUALISM HAS YET EXPLAINED  
THE FACTS OF OUR EXISTENCE.

The difficulty of explaining this fact has given rise to all the theories of Perception, such as Occasionalism, Preëstablished Harmony, Seeing All Things in God. It has caused many acute thinkers from Democritus to Spinoza and Huxley to assert that there is only one factor, and that material. Others, the more numerous and more acute, have held that we can know nothing but the spiritual; the rest being phenomenal and unreal. Like can be known only by like<sup>1</sup>; and therefore we, as spirits, can know nothing but what is spiritual. All knowledge, therefore, consists in knowing the spiritual ideals, the original images after which things are made, and the modes of thought of others like ourselves. But if we consult common-sense—and without taking this into our confidence, our necessary activities prove us fools—the assertions of science are empty, because they have in nature no corresponding con-

<sup>1</sup> Empedocles, in Arist., De Ani. i. 2.



tent, and therefore cannot be applied. When we eat, it is always a Barmecidal feast; when the earth quakes, it is an illusion caused by the tremor of our nervous system; and when the highwayman robs us and leaves us half dead, the whole is imaginary. The attempt to realize such a theory proves its absurdity. Both of these factors, subject and object, are necessary on any conception; and are involved in all, even the most abstruse and *a priori*. For in this last case the mind must act upon itself, being both subject and object. These conceptions are embalmed in language which is the petrefaction of thought; and show that all men proceed on the assumption of these two factors. This demonstrates that any material explanation of nature is self-contradictory. The factor which acts must be in the form we call immaterial, or spiritual. This we see in all the appliances in machinery or science. The force is not discernible to the material organ, except by what it does. Yet we know it must be present by its effects. The cause must equal the effect; and this cannot be the bare material of the instrument; since this, by itself, is never known to act. Nor is the size of the tool diminished to an amount equal—(nay rather, it is increased)—to the work it has done, which shows that it is the immaterial agent that does the work. The wire will not convey the message, either by telegraph or telephone, unless it be charged by some force which we knowingly conduct there, or can account for being there. The body does not move unless there be life to arouse it into action. It may be as complete a moment after dissolution as before; but, after the living power has departed, there is neither speculation in the eyes, nor cunning in the hands. Hence there is absolute necessity of power of some sort to produce action. What Power is, whether physical or mental, we cannot explain by phenomenal marks; but it undoubtedly is in its last analysis the sum total of what exists as effective energy directed by intelligence.

## FORCE AND MATTER THE SAME UNDER DIFFERENT ASPECTS.

Hence it is the same thing under different modes of existence, whether in the form of the grossest material or the most refined essence. The Development theory, devised either in mocking disregard of its influence on religious thought, or in conscious hostility to its claims, postulates a condition of things in the geological ages when the materials of the solid world were in a liquid form. The internal heat of the earth, the thin crust of firm material, which encases a mass of liquid fire seething with a heat more intense than the blowpipe can produce, clearly prove this view. For the hardening crust, as is witnessed by the diminishing frequency of earthquakes and volcanic eruptions; the many external craters—some of them changed into lakes in the volcanic peaks—are a voucher for this theory. Let us in imagination antedate the palm and fern era, when tropical vegetation covering the polar regions was converted into anthracite and petroleum. The spheroidal form of the earth denoting the swell at the equator of plastic material by rotary motion; in a word all scientific investigations—which were not undertaken for the purpose of confirming the scriptural account of the earth's formation—go to show that there was a progressive change from the less dense and solid form; and that this process has gone on during countless ages. Taking up the thread of this process inversely, and carrying it backward during all the time so obligingly furnished by the geologists, we come to a condition when, what farther along was stardust, an incandescent gas immeasurably more subtle than hydrogen (gas), and we see what is material approaching the form of pure spirit. At least it is as far removed from solid body as scientific thought can express; and if it be not spirit, still time enough is allowed by science of the

doubting sort to carry on the process of subtilizing absolutely *ad infinitum*.

THE QUANTITY OF FORCE FOREVER THE SAME UNDER EVERY FORM.

The force in the universe was the same as now, according to the accepted theory of "Conservation." The power to act and the intelligence to develop along one certain line rather than another was either immanent in the subtilized materials, or, if separate as a personality, would have to be omnipresent, in order to act on each particle, and omnipotent to control these in the particular way which an Intelligence equal to the construction and government of a universe would require. We see that material can be changed into power. The coal which generates heat to move the steamer or the railcar was once tropical vegetation. Earlier it was heat which moved from the sun through space; and still earlier the sun was nebulæ or subtle gas, and we have no reason to say that the subtilizing process stopped short of pure spirit. Again: when the coal is burned, the greater part of its material is changed into its equivalent, heat. If our processes were less bungling and wasteful, it would furnish much more applicable power. If they were perfect, there is reason to think that there would be absolutely no residuum of material. All would be transferred from material into its equivalent power. But it is still true, in the most accurate results of the most self-sufficient science, "that when the human intellect divides nature, there is always a remainder."<sup>1</sup> But this is because the instruments with which man works are partly material. When he divides pure number there is no remainder. When he deals with abstract geometrical or logical formulæ, there is no remainder. So, if he could have a purely mental workshop for

<sup>1</sup> Goethe.

his laboratory, he could change any material into its equivalent power; that is, he could see precisely the composition which, in its final analysis, can be expressed in terms of force or energy. So we are justified in saying, that there is only one substance in the universe. And this is neither material nor immaterial, as these words are generally accepted; but a higher unity which includes both. Getting down to the level of our conceptions, the phenomenal part is constituted of matter, while the dynamical form is force or spirit. The spiritual in its last manifestation is material. The material in its first or highest and most refined form is spiritual. There are infinite gradations between them; yes, we repeat, infinite gradations. This is an absolute truth. For the universe is infinitely great in its extent; and the organism of matter in the atom is infinitely small. Space has no bounds, and time no limit in either direction of its succession. So that which we, for convenience, call Mind and Matter are merely two successive stages of one and the same substance. We disavow pantheism, and believe emphatically in a personal God, revealed to us in the Scriptures, in our consciences, but, most of all, in the person and life-work of Jesus Christ.

#### PROCESS OF CREATION.

But we hold that Creation is merely a transfer of a part of the power and intelligence of the Supreme Being, the Almighty Power which fills all space and time, into another form. Hence the Evolution theory, as the name of this transformation, pleases us well. But there can be no evolution along fixed lines and for a definite result which can be the basis of a rational science, without a Personal Intelligence to fix the lines, and to provide the causes to produce such results as we see everywhere, and which we are compelled to accept as marks of Design. The Immanence of Finality, the last ditch of him who vainly imagines he

can expel God from his universe, also pleases us well. For God is immanent, both in the wisdom which devises the plan, and in the power which executes the design, and transfers a part of his energy into phenomenal matter. God is everywhere in his works, as the Creator, as the Designer, as the Governor; but he is there as a Personal Agent. We cannot conceive of anything being done save by a personal agent, either directly or indirectly. Most assuredly we have never witnessed anything done in any other way. For we act in this way exclusively. We project our thought and experience outward, and by their actions, both alone and in combination with our own, we are sure that other men do the same. And this being our only standard of judgment, we are estopped from arguing from our ignorance, and saying, Evolution, Mechanical Finality, Fortuitous Concurrence of Atoms, or any other equally inconceivable and irrational system, is the plan on which the world was built.

But, if these things be so, how does this theory of Transference of Equivalentents aid us in discovering the way Perception is effected? There is still phenomenal matter to which all our senses give testimony. If we cannot believe these, what can we believe? Their actions underlie our life. And if we live under a scheme of Optimism, they tell us the truth. Certainly by trusting them we get the irrefutable results of science. But again: Our consciousness tells us that there is something besides matter, something that uses this merely as its organ. There is that which thinks and moves, which wills and knows. This is not matter in the gross form of the earth beneath our feet; or the fuel which produces heat to do our work. These are certainly different in form from the agent which employs them. But yet they may be the same under different modifications. Matter, as we have seen, is force, even spirit *ἐν δυνάμει*. Force or spirit is matter *ἐν ἐντελ-*

ἐχέῖα. The one is equivalent to the other. The albenna with which Cleopatra painted her eyes, the stibia with which she brightened her swarthy cheeks to ensnare Anthony, led to the battle of Actium. The food which Bismarck ate was transformed into the bodily form, and this in turn into the intellectual vigor which effected the overthrow of Louis, and wiped out the disgrace caused by the part which Magdeburg and the Rose played in that memorable interview between Louise and the great Napoleon. Mutual transference between matter and spirit is perpetually taking place. We may not be able to tell the process; for, as Bacon says, "The greater part of her work, Nature does in secret."<sup>1</sup> The results are palpable, the process hid; but the fact that there is an unseen energy at work is indubitable.

#### WHERE IS THE TRANSITION FROM ENERGY TO MATERIAL?

The question now properly arises, At what point does the change or transfer take place so that the one factor passes over into the other? Nature does not move *per saltum*. Her processes are so regular, so quiet, and so subtle that in most cases it is impossible to discover her movement. Between wide intervals the difference in development can be discovered; but any two successive steps cannot be distinguished apart. If we take matter in the form of incandescent gas, and granite or fossil gold, the diversity is greater than words can adequately express. Doubtless if we had powers acute enough to follow the change back from the most subtle gas to pure force or spirit, the gradations would be as many, and the differences as great. But the star-dust or subtle ether contains all the elements of the granite or gold; not merely dynamically, but ἐν ἐντελεχεῖα. So, if these subtle elements arise by creative or transforming power by which equiva-

<sup>1</sup> Nov. Org. i., Aphorism 4.

lent energy is embodied in material form, if this subtle matter is traced back in its development till it reaches a mode so refined that it is then Spirit or Mind, this ultimate mode of existence embraces all that is contained in any of its subsequent forms. At one time it is mind or spirit; at another stage of condition it becomes phenomenal, subject to the grasp of the senses, and is space occupying. Where the transition is from one to the other cannot be fixed. The knowledge gained by the senses is all relative. There can be no absolute standard in any weight, measure, or capacity. We call one large, another small. So we call one form of existence Force, or Mind; another Matter. But the exact place where the one ceases to be and the other begins is like a line which divides, but has no breadth or thickness.

EVERY LINE WHICH DIVIDES NATURE IS ITSELF INDISCERNIBLE.

This same limit exists in all transitions. When does day begin and night end? When, except by an arbitrary point, can we say of any two correlatives, The one ends and the other begins? All things which resemble in any degree are embraced under a particular category, which makes them the same in that special mode, though they may differ in all others. But things which are equivalent in force are the same in all that constitutes existence. What we call Creation, what the evolutionist calls Development, is a transference of a part of the infinite Fountain of Being, Intelligence, Force, by voluntary modification, which is thereby changed into material, and therefore becomes phenomenal. It is still kindred—aye the same—with its Source, its Maker, and can affiliate with all that is kindred with it; can know itself under all its changes even as it is known by its Originator. Thus we conclude that Mind can know Matter immediately as a product of the

former; and that the latter possesses modifications suited for recognition by that which formed, which governs, and makes it subservient to its own uses. So far as Mind acts for itself, it needs no medium; it knows directly. So far as it acts through materials and becomes phenomenal, this must be by impressions made upon the senses. And these are referred to the mind for interpretation, which in turn sends back the message rendered into terms of sense-perception, which is intended to effect material changes through like means. The five or more senses are necessary to enable the mind, while it acts through a material body, to communicate with and regulate its action; and hence in such action transfers its force into sensuous phenomena.

IV. CONCLUSION. THE TWO FACTORS, MIND AND MATTER,  
ACT UPON EACH OTHER DIRECTLY AND IMMEDIATELY—THERE IS NO BRIDGE TO CROSS.

The facts to be accounted for are, that the two apparently dissimilar factors are united and act in concert. But the explanation is, that they are not disparate in essence, but merely dissimilar in form. These in their combination make a rational being suited for action in a phenomenal world, "the minister and interpreter of nature," which, as the subject to be acted upon, consists of the corresponding factors of matter and force. The denial of either does violence to that common-sense according to which we are compelled to act, if we preserve the being and attributes of our ordinary life. These two corresponding factors in man and external nature act upon each other in the same way, so far as consciousness teaches us with regard to our own action, and which we must project outwards if we will interpret the phenomena of that world with which we are in touch. In both cases there is immediate interac-



tion. *Spiritus intus alit, mens agitat molem.*<sup>1</sup> The one of these factors we call Physical, the other Metaphysical; yet they are not diverse, save in their modes of action. If they were wholly diverse, having nothing in common, they could not affect each other. Will power could not influence matter in the pursuit of physical science or mechanical action; nor could the corrupt lusts of the body seduce the soul to yield if there were no responsive inclination to coöperate. They act and react on each other in perfect harmony, as kindred in nature and purpose. The body whose lusts are subdued becomes a fit temple for the Holy Spirit. The problem is how this interaction is effected. The one is localized, the other ubiquitous; not subject to the limitations of either time or space. Are they then really different? We know that they can be changed into each other: transformed without loss, so that they persist in remaining equivalents. So much matter produces its equivalent in energy, while losing only its form. This energy does its work, and in turn is restored to that great sum of power in the universe without any loss. It is gathered up again by organic life, and enters into the matter which this embodies, and becomes a store of force to be changed into energy again. Thus there is a constant interchange, and this by imperceptible gradations; the interaction being so subtle that the change cannot be observed except after long intervals. The conclusion inevitably follows that the two forms of being, Mind and Matter, are the same. Hence the process of Evolution is only the transference of Force or Mind,—the Hegelian Idea, the Will and Idea of Schopenhauer, the Substance of Spinoza, the *δυνάμις* *δύναμις*, or *εἶδος* of Plato, the Omnipotent Intelligence of the Sacred Scriptures—into phenomenal realities by Creation. This Eternal Being summed up in himself all that ever has been or will be.

<sup>1</sup> Virgil, *Æneid*, vi. 726, 727.

## CREATION A TRANSFERENCE OF ENERGY.

This Personality transfers a part of his power and intelligence into finite matter and spirit; just as we see parts of Time and Space—both in themselves infinite,—measured off by natural standards into definite portions. Both power and intelligence are modifications of one and the same Essence, whether exhibited under physical or metaphysical conditions. The force becomes matter, as we call it, yet at first so subtle that the change could not be discerned by finite intelligence. This material, the primordial elements of phenomenal things, develops by immanent force and teleology until it forms a universe of physical and metaphysical factors. They interpenetrate each other and are connected by such intimate reunion that, acting and reacting immediately, they know each other directly. The organ becomes fitted to the spirit, even as the latter does to its fellow, as may be seen in the force of bodily habit. Were the souls of two persons most closely resembling in character to exchange their habitation, neither soul nor body would know what to do with each other, because their respective habits would be diverse to a degree to render the new union insupportable. When in the course of evolution the material is organized into man, the immaterial factor which is immanent remains spirit, and knows its fellow by immediate knowledge which we call Intuition. The Supreme Intelligence knows all things without the intervention of sense-perception or reasoning: knows everything because everywhere both in the potency of evolving and the wisdom of designing. Finite Intelligences, if they can know the present or foresee the future, must do this by virtue of being formed after the same model. Thus the *a priori* conceptions of reason agree perfectly with the utterances of Revelation, that man was made in the image of God, who, being infinite, knows all in his sphere, which is the universe. Hence it follows that

man knows in the same way in his sphere, which is finite.

THE DOCTRINE OF PERCEPTION SHORN OF  
MANY DIFFICULTIES.

The theory of Sense-Perception is thus relieved of its chief difficulties. "God has made all things double [double folds] over against each other."<sup>1</sup> The duality begins in unity where all is mind and force combined in one personality. The one factor is placed over against the other in appearance, but remains one in reality. The factor called Mind remains immaterial, and is free to act as will without spatial or temporal limitations. It remains forever identified with matter which is called force, and is its equivalent. And thus the doctrine of the Resurrection, which involves a renovated and subtilized body<sup>2</sup> as its perpetual companion, is capable of scientific explanation. The energy and intelligence can be subjected to limitations on every hand, and must act as material to become phenomenal. As mind it is untrammled, save as the companion of an earthly body during its course of discipline for a higher stage of action. It grasps the material and holds it in an embrace which is indissoluble. For if there be an interchange, so that one is swallowed up in the other, the whole force or mind is still conserved, remains constant to itself, and undiminished even as before evolution. Accordingly the difficulties of Perception, or the problem of how two disparate factors can act on each other, vanish. For they are not two, save in phenomena. They are one in reality. As they are united in the evolution of new forms, their action is immediate; and, as they are ever together in the production of phenomenal action, there is no bridge to cross between them.

<sup>1</sup> Job xi. 6, Hebrew Text.

<sup>2</sup> 1 Cor. xvi. 44, 45.