think that this is the ultimately true or final solution of the riddle of evolution.

The note of absolute assurance which runs through the following assertion by Haeckel in the last century will not bring assurance to the same extent to the mind of the scientist of the present century opening to new orders of facts and taking new orientations in their interpretation :---" Thus, as Wolff justly remarked, the embryonic development does not consist in an unfolding of pre-formed organs, but in a series of new constructions; it is a true epigenesis. One part arises after another, and all make their appearance in simple form, which is very different from the later structure. This only appears after a series of most remarkable formations. Although this great discovery-one of the most important of the eighteenth century-could be directly proved by a verification of facts Wolff had observed, and although the ' theory of generation ' which was founded on it was in reality not a theory at all, but a simple fact, it met with no sympathy whatever for half a century. It was particularly retarded by the high authority of Haller, who fought it strenuously with the dogmatic assertion that ' there is no such thing as development: no part of the animal body is formed before another; all were created together' "1.

So also said Herbert Spencer: "In the course of its advance from a germ to a mass of relatively great bulk, every plant and animal also advances from simplicity to complexity".² Again, more definitely in another place³: "Already we have recognised the fact that the evolution of an organism is primarily the formation of an aggregate, by the continued incorporation of matter previously spread through a wider space. Every plant grows by taking into

- ² The First Principles, p. 437.
- ³ Ibid., p. 249.

¹ The Riddle of the Universe, pp. 45-46.

itself elements that were before diffused, and every animal grows by re-concentrating these elements previously dispersed in surrounding plants or other animals. Here it will be proper to complete the conception by pointing out that the early history of a plant or animal, still more clearly than its later history, shows us this fundamental process. For the microscopic germ of each organism undergoes, for a long time, no other change than that implied by absorption of nutriment. Cells embedded in the stroma of an ovarium become ova by little less than continued growth at the expense of adjacent materials. And when, after fertilization, a more active evolution commences, its most conspicuous trait is the drawing in, to a germinal centre, of the substance which the ovum contains."

Nevertheless, it cannot be pretended for one moment that the embryological history or "ontogeny" of the plant or of the animal can be understood and interpreted in terms of cell-nutrition alone. Apart from the un-explained fact viz. "ontogeny recapitulates phylogeny" (the embryological history of the animal is a recapitulation of the evolutionary history of that animal on earth), we have many an unsolved riddle contained in the fact of impregnation (e.g. only one of the ciliary cells floating and swimming in the male element being "favoured" by the stationary ovum and allowed to penetrate it; the fusion of the nuclei of the two cells and the formation of the "cytula" or stem-cell in which the constituent factors enter by "halves", and so forth), the formation of the triple "derm" or "blast" and their development according to a definite structural plan, and similar other facts; and these undoubtedly point to "the hidden architect" of Huxley chiselling out the features of the developing organism with his "impalpable tools".

Epigenesis may be a fact in this sense that the features of the organism are formed by "accretion" of matter to the cell-substance from without; but as in the case of the crystal the accretion of outside material to the nucleus is determined by a definite geometrical plan, so in the case of the organism, the ontogeny, depending as it does on nutrition and environmental conditions, is presided over by an informing plan or "design". This is an aspect of the question which no amount of "accretion," no "simplicity" in the earlier stages of embryological development, ought to conceal. A type or plan or "idea" (in the sense of Plato) undoubtedly works in the development of the individual organism; and it is immaterial whether it works immanently in the cell-substance or from outside. Whether the "unit" of living substance be a "monad" in the Leibnitzian sense or not (Leibnitz appears to have subscribed to the theory of "scatulation" or "boxing up" as it is called in embryology), it is undeniable that the growth of an individual organism cannot be accounted for by a mere fortuitous conglomeration of living molecules.

Conglomeration or accretion by nutrition is a fact; it is also highly probable that an "original impetus" (in the sense used by Prof. Henri Bergson) is operative in the growth of the individual as well as of the species-that in accounting for the actual fact of evolution one must steer clear of the cylla of mechanistic theory as well as of the charybdis of finalistic theory. But such " original impetus ", though some of its exponents will have none of a pre-fixed and pre-determined type or plan, is an impetus which does evolve in a fashion which indicates that its products, though "new" in every instance, are also similar to the extent of being classifiable into genera and species, and though moving continuously from freshness to freshness, are also suggestive of cycles and rhythms. In other words, an "original impetus" seated at the root of the evolutionary process cannot be conceived as an absolutely blind and chaotic tendency; and

though it may not be absolutely pre-determined, it is selfdetermined at every instant to the extent that it turns out cosmic "matter" in accordance with manifest "forms" or "types".

This is an interesting question into which we need not at present go. The point is this that at no stage of evolution (whether of the individual or of the species) do we come across a datum which is "matter" only, in relation to which some kind of "form" does not either intinsically or extrinsically co-exist. Their correlation is found at every stage, early or late. And further: in the early stages simplicity of form may be more apparent than real—that, in fact, the apparent simplicity of the structure of the germ-cell may be a "cover" for the great condensity and complexity of the evolving stresses operating therein. Thus the apparent simplicity of the "material" apparatus of the germ-cell probably co-exists with a vast condensity and complexity of the "dynamic" apparatus given in it.

That it may be so is indicated by several facts. The highly specialized characters of the micro-organisms, their "hobbies" or eccentricities, point to their probably possessing a highly differentiated organic apparatus not at present discernible under the microscope; but even assuming that the material apparatus is simple, it cannot be gainsaid that the apparatus of vital efficiency or dynamism in such cases is one that combines condensity and complexity: otherwise the wonderfully specialised individuality of the micro-cocus would be unintelligible.

And once this is granted, we cannot draw a line and say that the relationship of smallness (and apparent simplicity) of structure and condensity and complexity of functional efficiency does not go farther than this. Whether or not "vital force" be something distinct from "mechanical force" (a distinction which, in the last resort, need not be maintained), it is clear that in the "colloidal" structure of the molecules of protoplasm ("the physical basis of life"), we must look for a provision whereby cosmic energy has become configurated and condensed in such wise as to make a living molecule . an apparatus for the characteristic operations of life. Whether the unit of "vital force" be called a "neuron" or by any other name, it is evident that the minimum space in which a given vehicle of its operation may exist, need not mean also a minimum of its dynamic value. That is to say, the smallest living apparatus may involve a vastly complicated and condensed dynamism. In a recent meeting of the Far Eastern Medical Congress in Calcutta a paper was read which suggested that disease-producing (pathogenic) microbes may have their own diseases produced by other microbes; and once this suggestion is allowed, the mind refuses to halt at any stage, frightened by the possibility of an infinite regress.

And the researches of the Indian savant, Sir J. C. Bose, showing the analogies of response, and consequently of structures and functions, of plants and animals, down to the least units of each kind, are evidence of the fact that the elements or aspects which are "patent" in the animal are "latent" in the vegetable; and that such extremely delicate means of detection as are afforded by the Crescograph, the Electric Probe, the Resonance Recorder, and so forth, shew that what is latent can also be made patent; and all this tends to demolish the superstition of the comparative simplicity, poverty and low efficiency of the "vegetative" cell. But imagination refuses to stop where actual demonstration has so far brought us: the living molecule itself, structurally and functionally, may not be so simple a thing as we may be wont to believe. It may be a "monad" or miniature universe after all.

The living molecule is a highly complex and unstable combination of certain atoms of which Carbon, Hydrogen, Oxygen and Nitrogen are the most prominent. Each of these

atoms, again, is a system of electrons and protons with its characteristic "atomic number". One electron or unit of negative electricity is supposed to be equal to any other; but Johnstone Stoney, the inventor of the name "Electron", remarked-the electron being of finite magnitude, imagination impels one to picture it as a tiny system itself with constituents smaller than itself, and these latter again as systems of still smaller constituents, and so on. It is also worthy of note that stresses or operative forces become correspondingly massed and condensed as the area of their operation becomes smaller and smaller. In the system of the atom, for example, the motions of the electrons are not "lilliputian" motions, but motions of exceedingly high velocities comparable to the velocity of light; and an infinite force is necessary to bring together two electrons. The "jumps" of the electron in its orbital motion prove, among other circumstances, that the world of the electron is not merely a world of tremendous motions and colossal forces, but a world in which there are "hobbies" or eccentricities too. Simplicity of manner, therefore, is a standard to which this world of ours does not conform.

Leaving the electrons and protons and æthers as representing merely stages in our progress to the *fundamentum ultimum*, shall we come at once to the four-dimensional continuum of "points" of the Relativitist? Are "point-events" with their "intervals" the last constituents of the world? It is no doubt a strong point of Relativity that it has abandoned the space and time of common experience as supplying the only possible basis for constructing the edifice of physical science. Our perceptual space is one out of many possible spaces mathematically studied by a host of meta-geometricians; and the Relativity Theory leaves the fundamental framework of the world so far undefined, that our world in perceptual space and time arises out of a particular mode of defining and determining the fundamental frame-work. Space and Time, as we have them in perception, or rather in the review following upon perception, are, therefore, aspects, among many possible others, which are defined and determined with reference to the fact of perception. This need not, however, make them *a priori* in the sense Kant made them, having no applicability to the matter of experience *per se*. This means that the substratum of the world of experience exists in many possible spaces and times of which, broadly, two are "selected" by us.

If that be so, some of the limitations which apply to the phenomena of common perception, may not apply to the substratum itself. A portion of matter cannot be, for example, in two places at the same time in the world of common space; or two portions of matter cannot be in the same place at the same time. But this need not be so in the substratum itself which has not been identified as the world in space and time. In that substratum world, these for us inconceivable relations may subsist—a thing can be here and there at the same time, and two things can be here at the same time. In the world of common space, the vanishing of the interval between two points must mean their coincidence; but this need not be so in the substratum world—like two converging straight lines they may only intersect when the interval vanishes.

Similarly, in our common experience of time, the three tenses, past, present and future, do not apear to meet at a point—they exclude one another. But the case may be different with the substratum world.

The Relativitist conceives his world and its fundamental constituents as not involving common space and time: which means that common space and common time are but two modes out of possible many ("manifold") in which the stresses of the world determine themselves with reference to our normal perceptions. The "tensors" involved in his formula for gravitation, for example, are so defined as to be independent of "matter"; and as Prof. Eddington pithily observes, "unevenness in the gravitational field is not created by matter; that unevenness itself is matter". The point of the matter is that the Relativity Theory makes the world not empty of Space and Time and Matter, but vastly richer than these; it gives us a substratum of the undefined and unmeasured of which our space, time and matter are particular definitions or determinations.

The point-events and so forth, therefore, do not give us a picture that is simple and "primitive" in relation to the world of actual experience. A world of many possible spaces and times, in which, for example, matter represents but an unevenness in the gravitational field, is a world richer and fuller than the world of ordinary experience inasmuch as this is the latter only in so far as it may be defined and determined in a particular way. It includes the latter and is larger than it. The dream of simplicity in the background is not thus realised.

Our perception and thought proceed both by "limitation of the data", by an operation that we have before calleddefining the undefined and measuring the unmeasured. So that the background or substratum is, by such limitation, selection and abstraction, relatively simplified in our ordinary experiences; the datum being vastly more complex than these latter. The world of experience is, for practical purposes, divided into three realms-matter, life and mind. That the boundaries are largely conventional is becoming more and more patent to us with the progress of science. But this is too large a question to be taken up at the end of a lecture. It is becoming more and more manifest, however, that apart from our pragmatic interests and the conditions and limitations of knowledge and appreciation created by them, " matter is less material and mind is less mental" (to quote Bertrand Russell's words); that, in fact, matter, life and mind are but

one fundamental Being-Power of which different aspects are emphasized in these; so that matter lives and feels without our suspecting it, and mind functions as matter without our taking cognizance of it.

Now, the analysis of each pushed to the last or as far as possible to the last, shows (as we shall see in another lecture) massed and condensed "points" of Being-Power, plus, some sort of a continuum in which the points are in stress with one another. Thus we have a continuum or medium for the "corpuscles" (units of matter-whatever these turn out to be in the last resort); we have a panspermic or cosmozoic continuum for the "life-atoms" and we must have a cosmic mind-stuff ("conscious" or "subconscious") for the different individual mind-centres to exist and stress in. If we provisionally adopt "electron", "neuron" and "pschycon" as the units in the three regions, we find that each is a centre of stress and strain in a continuum.

And we find further that neither the unit nor the medium is, apart from our pragmatic limitation and abstraction, simple and definable and measurable. That the electron appears as simple, definable and measurable merely shows that it is but a practical unit-not made to stand as the ultimate unit. Ideally speaking, a unit or centre is the continuum in a state of maximum condensation-maximum focussing of the entire Being-Energy which is diffused as the continuum. In it extensity or diffusion is reduced to the minimum, and intensity or condensation to the maximum. If the Continuum is+infinity, the "Point" in it is-infinity, expressing by the difference of sign the relation of extensity and intensity. But the Point or Centre we shall study later on.

The idea here especially relevant is this: units presuppose their continua; and units being the massed "strains" of their continua, the indefinability and immeasurability which pertain to the latter also really pertain to the former.

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In other words, it will not do to imagine that to the extent that we push on to the units and to the continua, we are able to leave behind complexity and undefinability. It is not merely concrete experience at the actual or normal level which is, in its entireness, unmeasurable and undefinable; it is really so at *all* levels down to the points and continua. Thought of course at *any* level may so define entities (units or media) that they become measurable and even simple: in this way, science becomes a possibility. But such defining is partial ignoring of the actual data.

And since we have reasons (as we shall find) to reduce different continua (such as Matter, Life and Mind) to one fundamental Continuum pragmatically differently emphasized and regarded, we are entitled on the same grounds to assimilate the different units to one another, and regard the electron, neuron and pschycon, for example, as Enp, eNp, enP respectively, where the capitals represent our pragmatic "dominant", and the small letters the "recessives".

Analysis of experience, as we ordinarily have it, does not show, therefore, that matter and form are isolable—that we have one series in which form is reduced more and more suggesting "pure" matter "in the limit"; and another series in which matter is eliminated more and more suggesting "pure" form in the limit. The two not merely co-exist, but in reality, though not in ordinary or scientific convention, they retain to the last stage of points and continua their alogicality implying indefinability and unmeasurability. It is only natural, therefore, to assign them to a common root to a common mine of alogical Being-Stress. Brahman as the $P\bar{u}rna$ or Whole is the source of both the matter and form of experience—the material as well as the formal "cause" of the universe, as it is commonly put.

As underlying and evolving the multifarious matter-inform, Brahman has been called by us "Stress" or Power (suggestive of the Perfect Energeia of Aristotle's metaphysic and Actus Purus of the Schoolmen). This "Stress" is variously described as Šakti, Prakŗti, Māyā.¹ Šakti is Brahman: the relation is one of identity. The terms are often, however, employed in narrower and special senses. In employing them in this manner, we logically treat (that is, define and measure) what is *ipso facto* alogical. In this way, the term Śakti is commonly used to connote the dynamic or moving aspect of Brahman, as distinguished from the static or quiescent aspect which in the Āgama literature is spoken of as Śiva.

What we have been so far studying as "matter" and "form" have their common root in Brahman or Šakti conceived in the supreme sense. Alogically, either exceeds the characterization that It is the matter and the form of the universe; logically, It is the matter as well as the form. The case of the "Pure Æther" of Consciousness we shall study later.

¹ Cfo "Kāma" in the Rg and Atharva-Vedas; also, "Ikṣā", "Sangkalpa", "Tapas", etc.

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THERE is an aspect of Experience-whole which, from the point of view of Vedāntism, is of supreme interest, but which cannot be made easily manifest to western thought. The Sanskrit term for that aspect is *Cit*, *Caitanya* or *Samvit*; and it is an untranslatable word. "Consciousness", "Cognition", "Intelligence", "Thought", "Awareness" are among the many English synonyms proposed; but the western meanings and implications and associations of these terms are such that they cannot be made to truly express the meaning of *Cit*. To make the best of a bad job, however, we choose the first term—"Consciousness"—for the purpose.

In western psychological literature this term has not been used invariably and precisely in the same sense. From cosmic consciousness or sub-consciousness to that group of mental re-actions connected with the excitations of the cortex of the brain (excluding, therefore, others which are not so connected) the term has been made to spread the net of its meaning wide and narrow. Within what is admittedly consciousness, a distinction has been recognised—as it must be recognised between the "focal" and the "fringe"; so that it has been looked upon as a variable quantity. Then, again, a "threshold" of consciousness has been recognised, indicating that experience may be either above or below the threshold line. The floating iceberg with nine-tenths of its bulk submerged in the dark depths of the sea has not unoften been.

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requisitioned to familiarize the relation of conscious and subconscious experiences to us. The biologist would render the conscious half of experience in terms of the "reflex arc" becoming longer and more complicated on account of the nerveprocess being "inhibited" in the central apparatus and switched off the usual short route (the reflex arc) into the longer and more complicated route of the cortical centres. "The child and the candle" case which, as stated in William James' *Principles of Psychology*, became classical in psychical literature, shows the difference between the shorter and the longer arcs or curves of neuron-flow, and along with it, the difference between states that are sub-conscious and that are conscious.

Experimentation with the "brain-less" frog etc. has proved that such animals can be made to perform practically the whole round of their normal activities upon appropriate stimuli being applied, and that the only noticeable difference is, in the words of William James, lack of spontaneity on the part of the animals operated upon, or "increased inertia". Now, since the brain-cortex is supposed to be the "seat" or "organ" of consciousness, these reactions of the brain-less frog or pigeon must be set down as sub-conscious. Practically the whole round of vital activities, including highly specialized reactions to external stimuli, can be gone through, so it seems, without there being consciousness at all. James' famous explanation of Habit, and the equally famous Lange-James theory of Emotion (which makes it a sort of "organic reverberation" or "resonance") gave to consciousness no essential rôle to play in the economy of mental life. Philosophers ever since the time of Descartes, who reserved (not strictly out of philosophic considerations-so it has been suggested by Ernst Haeckel and others) thought for man, but looked upon other animals as purely mechanical automata", the tendency of philosophy with a mechanistic bias has been not indeed to reserve consciousness as the prerogative of man, but to deny the causal efficiency of consciousness as such. The mechanical order of phenomena, including nervous and cerebral phenomena, has been by such philosophy believed to be a "closed curve" into which consciousness or any other extra-mechanical factor has not been permitted to trespass.

This, however, is by no means the generally admitted position in western philosophy. Since, "selective or preferential action" as James called it is the true index of consciousness, and since selective action is, as it appears, inseparably connected with every living centre, we may legitimately infer with James that consciousness should not be restricted to what, to a given individual, appears as his cortical consciousness; that brain-consciousness is part of a wider consciousness "presiding over" all centres, whether cortical or subcortical. In this way, what a person accepts as his "normal" consciousness forms but a section of a larger consciousness which, in so far as it exceeds that particular section, was called by James "ejective". Whatever is included in the actual consciousness of a Subject is "objective" in relation to it; and whatever, not included in the consciousness of the given Subject, is included in another consciousness, is " ejective ".

And once this larger and ejective consciousness is admitted, it is impossible to halt for good at an absolutely fixed line, and say that consciousness is only so large and no larger. If there be true indications for a panspermic or cosmozoic substance capable of "selective action", then such indications are also indications for a cosmic consciousness. Then, again, traces of spontaneity and selective action may at last be discoverable in the so-called "dead" matter also: as in the micro-organisms we have "hobbies" to reckon with, so in the orbital motions of the electrons we have "jumps" to reckon with; and these together with many other facts may refuse to tally exactly with mechanistic explanations, and may indicate a residuum of spontaneity in all deterministic solutions of material behaviour, a margin of freedom and selective activity exceeding the rigid iron framework of governance by formulae. Special reference should here be made to the now well-known Heisenberg's Principle of Indeterminacy.

But in western thought the point at issue between consciousness and subconsciousness is not decided. Amongst classical German thinkers, Hartmann and Schopenhauer are two notable examples of a philosopher starting with a World-Principle unconscious or subconscious in itself which wills and "swells" into consciousness at this level or that. And this type of thought has its present-day representatives also. Particularly has this thought prevailed with those who, confronted with the ever-increasing and substantially indisputable mass of parapsychical and crypto-psychical phenomena (hypnotism, plural personality, dissociation and exteriorization of sensibility, X-ray vision, telepathy, and so forth), have sought refuge in the depths of a Cosmic Sub-consciousness (which is the active medium for all personal consciousnesses to operate in) to escape from the alternative of a Cosmic Consciousness and intelligence to which "spiritualistic" phenomena (connected with after-life etc.) so obviously point.

Others, not yet "distracted" by the call of this "new" psychology, have entrenched themselves into a larger subconsciousness as underlying the vital and mental activities of the living centre, rendering their freedom, spontaneity and selectiveness possible, in order to escape from the alternative of mechanistic and materialistic philosophy which they find to be inadequate. The case of consciousness versus sub-consciousness is thus an important one, and awaits decision.

The connexion or nexus between psychosis and neurosis is generally taken as proved. But what is the extent of the

connexion? Representing the two parties by two circles, A and B, respectively, can we prove that A and B are exactly co-extensive? If so, then, not only are mental phenomena impossible without parallel nerve-phenomena, but also vice versa. Some theories have actually gone farther than the whole length of believing this: we might instance W. K. Clifford's "mind-stuff" in this connection. The "atom-soul" and "cell-soul" are not unheard of curiosities in the history of speculation. Fechner, for instance, speculated about the cellsoul. Wundt (pupil and assistant of Helmholtz in his youth) leaned first to materialistic explanation, but in maturer years "repented of the sin of his youth", and leaned to spiritualism. But, explanations apart, the question now put is this: to what extent does matter-motions and mental processes overlap as regards their correspondence?

Matter we find to be organised and unorganised or mineral. Organised matter, again, may be either organised as nervous mechanism or not so organised. The former, again, may be organised as the brain or not so organised. Now, does the correspondence between mind and matter mean only correspondence between mind and matter organised as the brain? Actual evidence goes to show that it is so; but is it so only?

If it be so only, then the phenomena of consciousness as regards their extent becomes = the cerebral phenomena which are smaller in extent than the general phenomena of the nervous system. In this case the greater bulk of nervous phenomena will be without the accompaniment of consciousness.

This seems to be the orthodox position among physiologists—cortical excitations are accompanied by consciousness, whilst sub-cortical excitations—those in the cerebellum, medulla oblongata and spinal axis for instance—are subconscious. Some nerve-phenomena, therefore, have consciousness accompanying them: the circle, A, is thus partly cut by the circle, B.

Does this mean that B is wholly within A? If so, then there is no consciousness where there is no brain. This may or may not spell materialism according as the assertion is or is not made in an absolute sense. If the physiologist says— "so far as our actual observations go, we find brain phenomena and modes of consciousness to go together; but this does not mean that the former are *indispensable* for the latter, —that there can be no consciousness where the brain is not actively there",—then, he gives no more than a statement of fact, and one that is non-committal. And it is hardly necessary to point out that only such a non-committal statement of fact is justified on the data which science has so far been able to get together.

Now, if only such a non-committal statement is permissible, brain-states and conscious states become two intersecting circles: some brain-states are accompanied by some conscious states. Or, perhaps, the former circle falls within the latter: which means that all brain-states are conscious states, but not vice versa; there may be "disembodied" consciousness also. At any rate, it leaves the door open for such an hypothesis.

The actual evidence before us does not warrant us in going beyond a non-committal statement as the above. If with William James and others we extend the sphere of consciousness so as to include what he calls the "ejective consciousness" connected with the selective action of the lower nervous system,—if, in other words, we call sub-cortical phenomena "ejectively" conscious and not subconscious—, then, also, it cannot be taken as proved that the nervous system is an indispensable organ of consciousness. For such a proof we should be in a position to apply the "Method of Difference": Consciousness is where the nervous system is;

and, other conditions remaining as before, consciousness is not where the nervous system is not. What is called the "Method of Agreement" (other circumstances in the antecedent and consequent are found to vary, but in all observed cases the antecedent and the consequent agree in having the neurosis and the psychosis) raises, as J. S. Mill and others rightly remarked, only a variable degree of probability-which is the greater, the greater is the number of relevant instances of their agreement observed. Not to speak of the Method of Difference whose probative value is higher (no inductive method can establish a truth of a higher value than the probable truth-as Bertrand Russell and others have shown), it is not easy to satisfy ourselves that even the method of Agreement strictly applies to prove an invariable connexion between the neurosis and the psychosis. Because, of the two correspondents it is impossible to assure ourselves, in view of the admitted difficulties in both the fields of observation (neural and psychical), that in the cases observed the two sides agree in nothing else than in the presence of the two correspondents. On the one side we have an observed neural fact. But what are the other circumstances connected therewith? Is the neural fact isolable from the entire tissue of circumstances of which it forms a part? The same with the psychosis: can it be isolable from the whole tissue of occurrence of which it forms a part? Are we sure that we have an appreciation of the whole tissue, even so much of it as is " relevant "?

But it will be said that though the observed data are not sufficient to prove *causal* correspondence between neurosis and psychosis, they prove correspondence itself, or the bare fact of going together. The fact of going together is undoubtedly observed in a certain number of cases; but this *proves* nothing beyond the observed cases. And even in the observed cases, it creates no presumption as to neurosis and psychosis

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being causally or otherwise invariably connected. If the number of observed cases be great, and real exceptions havenot been observed, and, further, if correspondence has been observed in cases more or less differing in other circumstances, then a fair probability is raised as to their also going together in the cases not yet observed. In other words, it will render it probable that in all essentially similar cases not yet observed, neurosis and psychosis will go together. If, for instance, correspondence has been observed between the two in the case of a certain person, A, it will be probable that a similar correspondence will be observed in other persons or animals. whose nervous systems and minds are constituted similarly to those of A. It creates no presumption as to there being a causal nexus or any other kind of invariable connexion between neurosis and psychosis in general. The Uniformity of Natureand the Principle of Continuity do not warrant us in ignoring the actual conditions in which the course of Nature is uniform, and laws and principles are continuous. If X isthere where ABCD are there, uniformity makes us believe that X or something akin to X will be there wherever ABCD or something essentially similar to them are there: But in actual experience, it is not often easy to satisfy ourselves that ABCD or some assemblage or ensemble "essentially " similar to ABCD, are actually there.

In Indian Logic the name Vyāpti has been given to invariable connexion on the basis of which an inference canbe drawn as to B's being there where A is there. The definition of the invariable connexion as established in Neo-Logic may be, theoretically, regarded perfect as a formula; but in any particular empirical application of the formula it is. difficult, if not impossible, to satisfy ourselves that the application is absolutely all right.

Shall we take the simplest definition of invariable connexion that is commonly given-B is invariably connected.

with A, if it be never found in the "realm" where A is not?¹ This is all right (except in those cases in which A stands for some entity which is never non-existent);² but how can we ever be practically sure about the "never"? Absolute negation is the fundamental idea underlying every demonstration of $Vy\bar{a}pti$ or invariable connexion;³ that is to say, we must be able to satisfy ourselves that the absence of B is absolutely consequent upon the absence of A. Now, this is a satisfaction devoutly to be wished for, but it can hardly be attained to the requisite degree in any empirical case: hence demonstration by induction is never more than presumption or probability.

In the case under discussion, it is not possible to satisfy ourselves that consciousness never is where neurosis is not; if, in other words, we draw a circle to represent the nonexistence of neurosis, we can never be practically sure that consciousness is not within that circle-that consciousness is not where nerve phenomena is not. Such "negative argument" is the soul of the Method of Difference also. The observations and experiments of the physiologists have indeed shown that (1) a particular nerve phenomenon and a particular mental phenomenon go together in the observed cases, and, (2) the absence of that nerve phenomenon is also accompanied by the absence of that mental phenomenon. This makes of course the probability of their being present and absent together in the unobserved "similar" cases fairly substantial. But it does not prove an invariable and necessary connexion between the two-not to speak of nervous phenomena

¹ "Sādhyābhāva-vada-vrittitvam "—Vyāpti-Panchakam.

² Kevalānvayī.

³ Atyantābhāva-pratiyogitvam. cf. Pratiyogi-vyadhikaranahatu-samā nādhikaran atyantābhāvāpratiyogi-sādhya-sāmānyādhikaranyam."—Jaga dīsha. Cf. Also the definition of Vyāpti in the Second Chapter of Vedanta-Paribhāshā; that of Mithyātva in "Chit-sukhi" and "Advaita-Siddhi,". in general and mental phenomena or consciousness in general.

It is well to bear this in mind, because the observations of the physiologist have commonly been understood as demonstrating an invariable and necessary connexion between the nervous mechanism and consciousness. Consciousness has, accordingly, been defined in terms of the reactions of the nervous system-" a cross section " of the environment made by the reactions of the nervous system, to take a specimen. Granting that the observations are correct, they merely state the fact that a certain type of consciousness has been found to co-exist with a certain type of nervous ensemble, and they raise a probability that in all similar nerve ensembles similar types of consciousness will be found. They do not prove that other types of consciousness do not exist apart from any nerveensemble; or even that the same type of consciousness cannot exist apart from the given ensemble. The mere fact that B is found with A in some cases, and is absent where A is absent in some other cases, is no conclusive or even presumptive evidence that A is always there where B is there, and that A is never there where B is not there.

And particularly is this to be borne in mind in view of the exceptional complexity of the data on the strength of which a nexus between neurosis and psychosis has been sought to be established. That there is observed correspondence between some nervous states and some states of consciousness need not be called in question; but question *does* arise as to the nature and extent of both the correspondents. It has so far not been possible to show a connexion between a particularly defined nervous state and an equally defined state of consciousness. Possibly, as James and others suggested, the nervous system acts as a whole with its stress laid on special tracts (centres and fibres) when we have a special kind of experience. And whatever limitation of the actual data may be convenient

for science, it is undeniable that the nervous system does not in fact operate as a system isolated from the whole organism; nor does the organism operate as though it were a solitary machine, absolute and self-sufficient, in the universe. The organism works as a "centre" in the universe of things and relations. Now, the universe in which the organism is an operative (acting and re-acting) centre is not purely material or physical.

So that even after making a diremption of the real universe of being and becoming into a Subject's consciousness and the total objective content of that consciousness which that Subject cognises as his "world" or "environment", it is clear that we cannot link up his consciousness or the "modes" therein with this or that element of the world or environment taken in isolation; but that consciousness of that Subject as a whole may be linked up with the stressing of the world as a, whole. And though for particular modes of consciousness, stressings of particular parts of the world (e.g. the Subject's organism, his nervous system, certain ganglia in the cortex of his brain, and so forth) may be indicated, it should always be plainly observed that the actual action and re-action, and, therefore, correspondence, are between the two wholes, and not really between the two "points" or particulars through which a connexion appears to be established.

When, for example, I press the hand of another person in gratitude or love, it is not the fingers of the two persons that are the real correspondents: it is a transaction between two whole personalities effected through the fingers that have met and pressed one another. Every external stimulus or every bodily or mental reaction is of this nature: it is a transaction between wholes. Particular "points" or features or organs may habitually serve as the active partners or agents as in the case of the meeting fingers; but the real partners are there "behind the scenes." Our pragmatic action and talk would in most cases require the fingers rather than the person; but this should never obscure the fact that the persons and not the fingers are the real partners.

To drag in the "wholes" from behind the scenes may inconvenience pragmatic and particularistic thinking, but it is essential in the interests of philosophy that the persons instead of their mere finger-tips should be made to appear. If the finger-tips alone are present before us, a habitual meeting of theirs may naturally lead us to think that such correspondence exists between the finger-tips alone, and, conversely, no correspendence can exist apart from the finger-tips. But if persons instead of finger-tips alone are there, we can easily perceive that though in many cases correspondence between them is effected by the meeting finger-tips, yet that is not the only possible way or means. I can express my gratitude or love to another person by a genial pressure of his hand no doubt, but also by a look, a word, and in a thousand other ways.

The analogy is important in this sense that, though a particular attitude and state of the nervous system may be there when a particular mode of consciousness is there, this need not mean that that mode of consciousness is connected with that nerve attitude and state alone—that that consciousness cannot be where that nerve attitude is not there. The "whole", the "person" in this case is the entire universe objective to the Subject whose consciousness we are discussing; the nerve attitude is merely the "finger-tip." And though the finger-tip may habitually express a particular affection of the Subject's consciousness, and may thus be its "correspondent", that affection, or consciousness for the matter of that, may possibly have other expressions and correspondents also—as a look or a word for gratitude or love.

The finger-tip is prominent not only in the case of the objective partner, but also in that of the subjective. Consciousness, too, is often ignored as a whole, and conveniently

treated, as this particular affection or that. The whole, the "person" is hidden behind the scenes. When, therefore, I enquire about the "objective" correspondent of a particular "mode of consciousness, I generally cut a slice out of the live whole, which is an undefined universe of experience as we have found, and correlate this to a particular regional excitation of the nerve centres and fibres. In other words, I try to understand the transaction as one between two sets of fingertips. In reality a whole universe of consciousness emphasized at a particular feature or features is there: and this is "confronted" by another whole universe of "objective" things and relations. These are the two wholes or "persons" accosting each other; and it is only to note their meeting fingertips to observe that a sensation of, say, green colour is correlated to a certain regional excitation of the occipital lobes of the brain. That sensation of green is an element abstracted from a universe of experience, and the two interacting partners are the two universes, objective and subjective. And though, habitually, in some observed cases, their correspondence is effected through the "finger-tips," it is hazardous in the extreme to infer that correspondence may not be effected through other means, such as a "look" or a "word."

It will, however, be urged that correspondence between two "persons" effected through different means are really different correspondences; that though gratitude or love, for example, may be *similarly* expressed by a pressure of the hand, or by a word or by a look, it is not *identically* expressed by these. So for an actually special and concrete fact of correspondence, we must have not merely two persons in generally appropriate moods and bargaining in nearly or substantially the same way, but we must have two special *ensemble* of conditions on the two sides. To use symbols: Suppose the two wholes are ABC and XYZ. Then, for special attitudes of them, A'BC and X'YZ, we have the correspondence, C; for other special attitudes, AB'C and XY'Z, we have the correspondence C'; for still others, ABC' and XYZ', we have C". And, though C, C' and C" may be similar, they are not identical. Hence it may be that for a special sensation of green, a special excitation of the occipital lobes may be necessary. Hence also, though consciousness and its modes in general may possibly exist apart from a special nervous apparatus, a particular consciousness and a particular mode of it must correspond to a particular attitude of that apparatus.

With regard to this, it may be observed that, as shown before, the actual evidence before us does not prove an invariable correspondence between a particular neurosis and a particular psychosis. Even assuming that it does, the question is raised as to whether the same particular effect (or correspondent) may or may not have correspondence with plural causes -whether, that is to say, the same phenomenon, X, may or may not have the same sort of correspondence with A,B,C. This question of plural correspondence or causation is one that does not admit of an easy solution; but, nevertheless, we may be permitted to say this that causation (why A is invariably followed by B and not by C) is such a deep mystery, that one is hardly justified in dogmatising about itto say, for instance, that a particular phenomenon, X, can follow upon ABC being there, and not PQR or ABD or BCE being there. It is true, of course, that in actual experience we find some sort of fixity in the causal connexion; and such fixity is practically useful. But this empirical and pragmatic fixity is no absolute guarantee for its universality and necessity: it does not preclude the possibility of alternative or plural correspondence.

So that though a particular neurosis and a particular psychosis may be empirically found to go together, it does not absolutely prove that the latter may not be there where

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some alternative correspondent (that is, not neurosis) is there; that, for instance, a particular mode of consciousness, empirically found to be associated with a particular state of the brain, may not possibly exist apart from the brain-state—in a "disembodied" manner (to take an alternative case). Nothing can be urged *a priori* to show that this is impossible or improbable.

On the other hand, if there be good reasons to believe that the world's finite and particular things are constituted after the manner of the "monad" (or, miniature world) in which the whole Being-Power is condensed in a manner (we shall discuss this while dealing with "Centres"), then the "germ" or possibility of consciousness is contained in everything, and though, ordinarily with reference to us, certain modes of consciousness appear to be correlated to particular things, namely the brain, it does not follow that any other thing, say a lump of "dead" matter or even an "immaterial" substance such as the "etheric double" of the theosophist and the non-spiritualist, may not, under any conceivable conditions, be the vehicle and correspondent of those modes of consciousness. In our pragmatic relations, the brain is, no doubt, the habitual vehicle of their manifestation; but a lump of "dead" matter, having in reality the "capacity" of the brain latent in it, may possibly, under certain circumstances, make that latency patent, and thereby manifest the states of consciousness in question without requiring to become or transform itself into a brain for that purpose. It may achieve the same result by an alternative method and means. We shall, however, revert to this aspect of the problem later.

That such alternative vehicling of consciousness is possible is becoming more and more evident as our acquaintance with crypto-psychical and para-psychical phenomena, of an unimpeachable character, has been proceeding apace. Even leaving aside the "spiritualistic" phenomena which appear to "prove" the existence of disembodied Spirits that feel, think and will in particular ways, the more generally admitted paraphysical phenomena of multiple and projected personality, dissociation and exteriorization of sensibility etc., indicate, though one can now hardly pretend that they prove, that the physical organism as an "organ" of consciousness is no sine qua non—that consciousness may exist and function detached from the physical organism, though, ordinarily, it appears to exist and function attached to it. At any rate, it seems likely that consciousness can exist and function associated with a vehicle "subtler" than the gross physical organism.

When, for instance, in an experiment of projected and exteriorized sensibility described by Professor Boirac, we find that the subject is sensitive not merely "over" his skin, but away from him over a glass of water with which some sort of connexion has previously been established, it is evident that the pinch or pin-prick given to the air just above the glass of water where the subject's sensibility has been projected, is not conveyed to the subject's brain in the ordinary way through the sensory, afferent nerves, but through subtle, impalpable threads of connexion, whatever they be. For the conduction of the sensory, afferent current an alternative route and method seems to be provided in this experiment; and yet, for such conduction, the afferent nerves seem to be indispensable. Now, the point is this: If an alternative means is provided for the afferent nerves, may not an alternative means be provided for the brain itself, or the physical organism for the matter of that?

Consider, again, the phenomena of "levitation", or the moving or raising of material objects by volition or mentative energy itself. Ordinarily the raising of physical objects is effected through the agency of the brain and the motor, efferent, out-going nerves working the muscles of the body. But in levitation this agency, in so far as it relates to the activity

of the motor nerves and the muscles, seems to be dispensed with. Here, too, an alternative means and method seems to be provided. Now, if consciousness can function apparently without the intervention of the motor nerves and muscles, is it not conceivable that it can function without the intervention of the nervous system also?

We need not go into other evidences supplied by "abnormal" psychology. The disembodied Spirits of spiritualistic research supply us with more conclusive evidence; but we do not propose to "invoke" them here. Those who, admitting the validity of the spiritualistic phenomena, are still seeking an explanation in the dark profundities of subconsciousness, have also been constrained to admit that this unfathomed (and perhaps cosmic) subconsciousness is too deep and too colossal to be awarded to, and settled on, special physical organisms. The physical organism makes but a small "cross-section" of this cosmic sub-consciousness, and this cross-section is, for all ordinary practical purposes, our normal consciousness. The physical organism is thus the "organ" habitually employed by cosmic sub-consciousness for certain purposes, but it is neither the whole, nor the only organ.

Now, substituting "ejective" or cosmic consciousness for sub-consciousness, we may affirm the last stated proposition in regard to it: the brain is the habitual vehicle of consciousness under ordinary pragmatic conditions, but it need not be the *whole* and *only* organ. Consciousness may change its means and ways of habitual, pragmatic manifestation. Possibly it is changing them even now without "our" (that is, pragmatic selves) suspecting it. Abnormal psychology, in every instance, is not exceptional psychology, it may be common and normal enough, but our interest being commonly elsewhere, we do not suspect that it *is* common and normal.

The vital issue between consciousness and sub-consciousness we may defer for consideration in connexion with the "Centres." It is, as we shall see, mainly a matter of definition. If consciousness be restricted to what a given Subject practically knows and accepts (or recognises) as his consciousness, including the "fringe", then, surely, a larger category, though in essential respects akin to normal or pragmatic consciousness, is needed to cover the whole realm of the subject's experience and the bargaining of that Subject with the experiences of other Subjects. Automatic action, memory, slumber, "unconsciousness" or swoon, and many another psychical phenomenon, not discoverable in the realm of normal wide-awake or half-awake consciousness, will require to be referred to sub-consciousness. But this sub-consciousness is one of which we, pragmatic Subjects, are not ordinarily conscious. And this need not mean that this is sub-conscious per se, or sub-conscious with reference to some other " Centres." Just as our own "fringe" of experience is semi-conscious fading into the sub-conscious, so "our" sub-conscious, may be conscious in a different "stock exchange" of relationseither to ourselves under different conditions, or to other "Centres."

That "our" consciousness is indefinitely vast at any moment ought to be patent to everybody. But still it has a boundary, though one fails to positively say where. It is thus not the whole. But what lies outside its boundary? Where are its memory "vestiges", automatic thinkings, swoons, slumbers, and so forth? Shall we discover them in *sub*-conscious experience, or will cortical and sub-cortical arrangements and readjustments alone do? Suppose we adopt the latter alternative: there need not be subconscious ideation and so forth, but merely brain-changes which embody memory vestiges, automatic actions and "thinkings", and so forth. James in his Psychology leaned decidedly to this "cerebral"

explanation of the so-called sub-conscious experience, though on many vital points of philosophic interest he joined issue with the "cerebralist" and the "phosphorescence philosopher."

But, surely, consciousness, like any other thing of which we do not have immediate experience at any moment, is also inferable by means of certain characteristic signs or indices. In this way, I think that some other "Centres" besides myself have also their consciousnesses-for example, Paul and Peter. The existence of other "Centres" in stress with myself is given in that immediate experience which I call my own; but I think that I infer the fact that these other Centres also have their own experiences. The Cartesians notwithstanding, such inference (I call it "inference" provisionally) is commonly extended to the animals, and may be extended to the plants-not merely to the collective cells, but even to the individual cells. Now, supposing that it is inference, I shall have to go by certain marks or signs or indices the moment I cross my own boundaries (pragmatically settled of course). Why do I, for instance, think that the cell, too, has an experience of its own?

The most characteristic sign is "action out of freedom", or in one word, "play." All living matter at least—we shall discuss "dead" matter later on—is free in this sense that it can, and habitually does, act on an inner impulse or spontaneity which makes (as James truly observed) its behaviour "unforeseeable and incalculable"; and this spontaneous action, which is also preferential and selective, is Play. This, when extended to "dead" matter also, is "Lilā" out of "Ānanda" which is in every being and is the root of its impulse. This is one of the profoundest teachings of the Vedānta.¹

¹ See Taittirīya Up. II. 4; also, III. 6. Brhadāranyaka Up. IV. 3. 32. See also Brahma-Sūtra II. 1. 33 for Līlā. Now, if "Play" in the sense here suggested be the index of consciousness, then, evidently, we cannot stop till we have come to cell-consciousness, or even to atom-consciousness (as further consideration will shew). Assuming that a corpuscle has a consciousness, we have "group" consciousness when a number of corpuscles combine to form a chemical atom; a larger "group" when a molecule, say a molecule of protoplasm, is formed; a still larger group when we come to the cell; and so on. The "group" in these cases is the resultant and not the sum of the constituent consciousnesses; for example, my "body consciousness" is the resultant of the consciousnesses of the constituent cells. This idea of the "resultant" we shall further explain when we come to deal with the "Centres". Since the very essence of consciousness is freedom and play, a resultant cannot be a merely mechanical resultant.

What I recognise as my "brain-consciousness" may not thus be the only consciousness assigned to me as a given "Centre." The countless living cells which constitute my body each has its consciousness (as I have inferred from the mark of "play"); the body as a whole has its group consciousness; and of this group consciousness I own but a part, namely that associated with the brain, as my normal consciousness. My owning a part and ignoring the rest is practically useful to me; but this does not mean that the larger "mass" thus ignored is either "material" only or merely "sub-conscious." It is a larger consciousness having its manifestation in freedom and play of which I happen to take no cognizance; but which is, all the same, consciousness associated with my body as a whole.

And since my body is not something that can be isolated from the world (and we cannot restrict it to the "gross", physical body), the group consciousness associated with that body is not the highest group possible or conceivable. Consciousnesses may be, in accordance with the extent of their

"grouping", arranged in an hierarchy of genera and species, and the *summum genus* is Cosmic or Universal Consciousness.

We cannot pursue this interesting subject further at the end of a Chapter; but it is worthy of note that our normal consciousness is probably not the whole of consciousness; that it is but a cross-section made from a larger (possibly cosmic) consciousness, and the nature and extent of the cross-section have been determined by our "evolutionary" needs—using the word "evolution" in not a purely biological sense. Thus there has been a sort of division of labour, very convenient, it seems, from both sides, between the cortical consciousness and the sub-cortical, in our organisms, not to take larger groupings. Probably each cell, each molecule, each corpuscle makes its own cross-section, which in Vedāntic parlance, is an *Upādhi* of Consciousness.

The grounds for believing in a larger consciousness of which, ordinarily, we have no apprehension, are not confined to the "inference" on the mark of free action or play upon which, for obvious reasons, we have laid so much stress. We want not merely to discover the larger and higher "dimensions" of consciousness, but also, so far as now possible, to catch the fundamental note of its being-manifestation: that fundamental note we have found in "Ānanda" and "Līlā"—ideas we shall especially develop in a separate Chapter.

Subsidiary reasons apart, the most vital reason for believing in a Consciousness of larger and higher dimensions of which our "normal" consciousnesses are pragmatically selected and accepted "cross-sections", is supplied by the "Fact" or Experience itself which we have studied in our foregoing lectures. The Fact is an undefined "universe": mind and matter, subjective and objective, me and not-me, and so forth, are polarities *inside* that universe; those polarities do not *divide* that universe no doubt; but they cannot be set up as something dividing that universe from what is not Fact or Experience. The universe as apprehended by me now is not the Whole of course: we have actually a series of larger and larger universes, all being more or less veiled "acceptances" or pragmatic "cross-sections" of the Experience-Whole. And though the Experience-Whole is as such neither purely mental nor purely material, subjective nor objective, it *is* Experience all the same.

It is true that I am not hopelessly shut up in what I call my subjective experience. The belief that my subjective experience is not all—that there is a universe larger than, and in a sense independent of, my subjective experience is one that is to be trusted. • Experience itself gives me an assurance of a larger universe of which I own and accept but a part. The position is not, therefore, one that can be called solipsism or idealism in the sense in which the latter term is commonly understood. Things really exist, and the circumstance of the bounds of my accepted universe now widening to include them or some of them, and now contracting to exclude them, does not make the things exist or cease to exist.

A real world consisting of an infinite variety of things and relations exists. Of this universe I as a particular Centre of "stressing", make a cross-section which, too, apart from my ordinary pragmatic veiling or ignoring, is a universe of indefinite extent, now expanding and now contracting. The real universe is thus *doubly* treated: firstly, by a fundamental defining and measuring Stress ($M\bar{a}y\bar{a}$) whereby the real universe *per se* becomes a universe having reference to a particular "Centre" of special "play" (acceptance and rejection) in it; and, secondly, by the from time to time varying circumstances of that Centre's pragmatic acceptance and rejection. The individual is born out of a fundamental Stress," and, being born, itself becomes a stressing Centre—

its stressing being manifested in practical owning and disowning, or accepting and ignoring. This latter stress is $Avidy\bar{a}$.¹

The individual's universe, much less the universe as practically accepted by him now and then, is not, therefore, the whole real universe. And yet that whole real universe is not substantially unlike the universe he finds himself in. Things and their relations will, of course, be fuller and truer in the whole universe than in the latter kind of universe which is a "cross-section" of the whole. But hardly any solid grounds exist for imagining that the individual's universe is his own "idea" or construction only, having no essential resemblance to the real Whole.

Now, Experience or Fact is the name we have given (provisionally) to the individual's universe of realities. Experience or Fact does not represent the individual's "impressions and ideas" as distinguished from things and relations; it represents or rather is actual things and relations as "cross-sectioned" by the individual, *plus* his impressions and ideas about them. The *plus* represents an analytic operation made by the individual in his "Fact".

Since between my Fact and the whole Fact no disparity in essential nature exists, the same name, "Experience", has been given to the Whole also; it has been called "Experience-Whole". My experience being only a cross-section of this Experience-Whole, the latter is realizable in "a-centric" intuition which, as explained before, does not "dissolve" any Centre or all Centres in the Whole (so as to make it a-centric, undifferentiated), but is able to apprehend the Whole involving all its correlated Centres—the absolute Whole involving the "partial" wholes of the individual Centres—, without being conditioned by the "contraction" which central reference in

¹ The term "Avidyā" is commonly used in Vedāntic Literature in the sense of Māyā also. Cf. especially the position of the Eka-iīva-vādins.

the first place, and central pragmatic veiling and treating inthe second place, implies.

Now since the Whole or Fact is Experience, it is what Experience essentially is. And, analytically speaking, Experience essentially, is a system of things and relations and a consciousness revealing and reflecting or representing them. More tersely, and still analytically speaking, it is consciousness and its object. Be it noted that we have not made this object an "idea". The Indian Sāmkhya System of Philosophy regards these two as independent of each other, and calls the first Purusa and the second Prakrti. In this it gives no doubt the substance of a fundamental analysis of experience. The "seen" and the "seer" (not the "Ego"), the revealed and the revealer, are the two "poles" in which Experience no doubt splits itself upon an essay of analytic operation being made with regard to it. We shall not herediscuss what grounds there may be or may not be for setting up the two poles as independent. They may be but the poles of a "Neutral Being". We have seen in the preceding lecture that for the "form" and the "matter" of experience, we should rather find out an identical root; and there Sāmkhya iswith us-the Prakrti is the common ultimate root of both. But what about Consciousness as such which, apparently, is neither form nor matter? Is it something absolutely distinct from the Principle--- "matter-cum-form"? We shall not here take up this question.

Now this Consciousness as the revealer is an essential feature of my universe which is a cross-section of the Whole. We are entitled, therefore, to believe that it is an essential feature of the Whole also. In other words, the Whole is a Conscious Whole. Semi-conscious, sub-conscious and unconscious are pragmatically useful and important distinctions. which exist for my universe or the cross-section; but they do not exist for the Whole as such. However paradoxical it

may seem to be, sub-consciousness and unconsciousness are "modes" of, and in, a Cosmic Consciousness. They pertain to all the acts of the defining and measuring Stress $(M\bar{a}y\bar{a})$ operating in that Consciousness, evolving Centres and groups of Centres, and defining their fields of correlation. In this sense we must entirely dissociate ourselves from the Philosophy of the Unconscious whether of the Schopenhauer or of the Hartmann type. Consciousness is not a special "swelling" of a Being-Power unconscious in itself.

To western thought, generally, Consciousness has appeared with both its extensity and purity hidden away. Consciousness is always and necessarily a "mode", a "state", a particular content: pure consciousness which is not a particular state, a particular determination, is an abstraction. Consciousness is as a perception, a thought, a desire or an emotion-a series or sum of these, a "stream" or, better still, a "continuum". But still, it is a continuum of features and particulars. The series or sum does not exist where the "terms" do not; the stream does not exist where the "pulses" do not; and the continuum does not exist where the features do not. The stream is, indeed, an improvement upon the series, inasmuch as it recognises the continuity of consciousness in protensity or duration; the continuum is a further improvement in so far as it recognises the continuity of Consciousness in extensity as well as protensity. Hence, though the extensiveness of Consciousness has been gradually emerging into recognition, its purity is not generally recognised in the west. Consciousness may be a continuum, but it is as a sea broken into a complexity of waves and foam. But the placid, quiescent sea?

The Sāmkhya, as we have briefly noticed, recognises a placid and quiescent "Revealer", and this, in one respect, is similar to the "Transcendental Ego" of Fichte and others with this vital difference that the essence of the latter is
activity whereby it posits both itself and the Non-Ego. But let us not linger over this. In all "schools" of Vedantism, Consciousness in the sense of Cosmic Consciousness is recognised as a continuum-a seamless unbounded "expanse"; but with regard to the other character of "purity" (that is, featurelessness), there is difference of view-point. Rāmānuja in his Sri-bhāsyam, for example, has taken considerable pains to disprove the position that consciousness is ever actually (that is, apart from abstraction) pure in the sense of being absolutely featureless, formless, determinationless. The common western psychologist will bear him company in this.

But does "pure" Consciousness exist? This we shall see as we proceed.1

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VIII

ONE AND MANY

The problem of "one and many" has been one of the central problems of philosophy in all ages. In the history of thought we find that stress has been laid now on this and now on that term of the relation. In Vedāntism stress has generally been laid on the aspect of fundamental unity, but within this general idea of unity, the idea of many has been given a place differently by different lines of Vedāntic thought. And since according to our conception, the Vedāntic thought is not something peculiarly Indian, but is the basic, "homotypal" thought (underlying even "magic" and so forth in the "lower" strata of culture), we may say that no type of human thought—however pluralistic, atomistic and serialistic it may have appeared to be in history—has been without an implicit or explicit recognition of fundamental unity in some form or other.

"The same stream in which we can never bathe twice" of old Heraclitus as also the "vital impetus" of Henri Bergson; the atoms of old Democritus and the Monads of Leibnitz; the series of impressions and ideas of Hume and the series of transient "states" ("Vijñāna") of the Yogācāra Bauddha—all these and similar philosophies, if closely scrutinized, will be found to imply a veiled recognition of unity in some form or other. The unity may figure as a "stream", or as a "series", or as a "field", or as a "continuum" or as a "system." The fundamental basis of unity underlying all such ideas which profess to be atomistic, individualistic or pluralistic must be sought in the Fact—the undefined universe of Experience-Being—of which all our thoughts are necessarily more or less "veiled" and "treated" forms. The series of discrete terms as well as the "stream" with a running continuity are obtained by a veiling and treating operation of the original and ineffaceable Datum—the Fact.

We have explained before the Stress in the Fact which measures and defines. Clearly, such measuring and defining is necessary in order that the alogical Whole may assume the logical character of one and many: one and many being logical poles or correlatives. For a logical apprehension of this polarity or correlativity, not only must boundaries and hedges there be *in* the Whole, but a "view-point" or "frame of reference" must appear in the Whole which is competent to regard the hedges as hedges-in-the-Whole. A Whole with hedges in it may yet be an alogical experience; for a logical appreciation of it, we must have an appreciation of the *relation* —hedges-in-relation-to-the-Whole. For such appreciation a requisite "view-point" must be there in the Whole.

The Stress in the Whole which measures and defines must, therefore, evolve requisite view-points or frames of reference in it; in other words, it must not only define Experience-Being, but define it with reference to "Points" of appreciation. In fact, defining has no intelligible meaning apart from such points of appreciation. When A is defined, it can only mean that there is some point of reference, B, with respect to which it is defined. Defining is a relativistic idea. The wholly undefined and undefinable is the Absolute.

It follows, therefore, that the continuum of Being-Experience must be a continuum of points so that any surveying and mapping of its immensity may *logically* be possible. Not only so; to our understanding no measuring and defining

movement in the continuum seems possible without the continuum first having "resolved" into "points". The appearance of a point in the continuum is itself an appearance of discontinuity: the continuum becomes something special, individual, discrete in that point. This is so in whatever way we may be looking at the continuum-physically or "spiritually". The physical continuum of Aether must be conceived to have "vortex-rings", "intrinsic strain-centres" and so forth evolved in it, in order that it may be an actual basis for the material universe. Spiritual continuum or cosmic consciousness or sub-consciousness, again, must have evolved individual Centres of operation and reference within it, so that it may provide a workable basis for the system of varied experiences. A similar pre-requisite seems to be demanded in the case of the inter-linked life of the countless cells which are the units of the living world.

By thus evolving "points", the Whole, undefined and unmeasured in itself, becomes fit and ready for measuring and defining movement starting in it. The continuum is of infinite dimensions—not only the three dimensions of common space and the fourth dimension of time, but all possible dimensions are in it. This means that with respect to any given set of dimensions, or "co-ordinates" as the mathematician would call them, the continuum is undefined and undetermined. It exceeds but does not necessarily exclude the definition by any given set of co-ordinates. This is what we mean by saying that its dimension is infinity. It is Bhūman or Brahman.

Now, the point is "the vanishing point" of all dimensions. Its dimension is zero. These two limiting positions, viz. the infinite dimension and the zero dimension are, manifestly, needed to conceive and understand any quantitative "structure" of the continuum. Without these two limiting concepts, the concept of a continuum which involves varying magnitude or measure becomes an impossibility. More or less, greater or less, higher or lower are concepts which hold only in a universe that has presented the two poles of infinite dimensions and no dimensions—everything and nothing (the point is the nothing of dimensionality).

But since the continuum of unfathomed and inexhaustible dimensions can never cease to be, the point of no dimensions. has being only as a point in, and of, the continuum. This means in plain terms that the continuum of Being-Experience, while maintaining its infinitude of dimensions, so disposes itself as to become points of no dimensions.¹ It disposes itself between these two "limits", or "poles" as we have called them, and all intermediate values, measures and degrees, are the result of the negotiation between these twolimits. Between the two limiting positions arises the "series" of measures and values. It is a logical self-disposition of the Fact and the terms " becomes ", " arises ", and so forth used in this connexion should not suggest a necessarily temporal or spatial process. Space-dimensions and time are only some of the possible co-ordinates with reference to which the continuum is or may be defined and determined; but in its immensity and inexhaustibility of being, it exceeds such partial determinations.

Since the "point" has no isolated, independent being, its being so, as that of all that is evolved from points, is polar or "binary" being—presenting two correlated sides, aspects or facets, to put the matter in pictorial terms. It is the continuum of infinite dimensions conceived to be reduced to no dimensions. From the one aspect, it is the All or Immense, from another it is the "Infinitesimal." This double or "binary" being is not merely a necessity of our logical thinking or conceiving. It is an arrangement in Being itself.

¹ Compare the idea of *Bindu* whose dimension is at once *full* and *nil*. This is discussed fully in *Japasūtram* (in six volumes) by the present writer.

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The idea is this: It is not merely in conceiving that the point must be taken in relation to the continuum: it is the continuum and at the same time the possibility of the continuum appearing as not a continuum—a discontinuous, individual thing. The being of the point involves a contradiction thus stated; it is alogical, though it is the starting-point of the logical.

This double or binary character of the point we can express by saying that it is the *minus* or the inverse of the continuum. In saying this we are thinking of the analogy of 1/0 = infinity, a mathematical relation which, like others, has its basis in the fundamental relations obtaining in the Fact (as we have indicated and maintained in our Approaches to Truth).

The Continuum "posits" (to use a classical Fichtian expression) itself as the Point. This fundamental act is illustrated and repeated in every limited field alone also. The grown up plant or animal "posits" itself in this sense in a seed or germ which stands for the Point in these intermediate planes of being. The Mind-stuff posits itself in this way in the Ego or "I." The "atom", again posits itself in its "central charge." These "deputies" of the Continuum-Point in the intermediate planes are not the equivalents of it. That is to say, in any finite field or system of finite dimensions, we do not find either the Continuum or the Point presented at its full effective value— + infinity or —infinity. A fraction of the full effective value appears in such a system.

This means that in the Point the Whole changes its "sign" but does not cease to be the Whole; but in the finite systems it *practically* ceases to be so. To realize the full effective value, therefore, either the Continuum or its inverse (the Point) must be reached. And, as a rule, the nearer we approach the one "limit" or the other, the closer does effective value in a system approximate to wholeness or fullness. Over certain intermediate ranges of the scale, our pragmatic sense no doubt appreciates effective values varying in direct ratio to smallness; but, in reality, with the shrinkage of the sphere or area of operation, operative value increases in intensity—that is, becomes greater per unit area or volume. The Point, therefore, must be conceived as the limit of perfection of the *intensivity* of effective value or efficiency as well as the limit of perfection of the non-extensivity of efficiency.

Stated abstractedly, such relations are difficult to grasp, but they can be sought to be proved a posteriori also. The actual universe of experience is a universe (continuum) of being and power (or efficiency): we are stating them separately, but we have hardly a right to set them up as separate entities. Now the contraction of the operative field of Being-Power is found to be accompanied by the augmentation of the intensivity of the Being-Power (or existent efficiency) per unit that field. The "lines of tubes of force", to borrow a familiar concept from the province of classical Electro-Magnetics, become more closely packed per unit field as the field is reduced. Thus a series is found of gradually decreasing extensivity of the field and correspondingly increasing intensivity of extent efficiency per unit field. What do we get when the field is infinitely reduced in extensivity and infinitely condensed in intensivity? That is the Continuum-Point or the Universe of Being-Power conceived as the Point ('Bindu').

This interesting idea of the Point need not be further developed here. The "Point-event" has already occupied a fundamental position in the Physics of the World to-day. The atom, corpuscle, electron, centre of force, gyrostatic strain, and so forth, appear to have been the intermediate unstable forms leading to this idea of the Point-event. In order to bring Biology and Psychology more closely and intimately in rapport with Physics, the "World" as well as the "Pointevent" will, of course, require a conception of even higher syntheticity, but, already, the advance of Physics in the way

of fundamental world-conception has meant a positive gain in Philosophy.

Now, we come to the relation between the "Point" and the "Centre." Between the Continuum and the Point which are the two "limits," we have a series of effective values or existent efficiencies. We may conceive this series as born of the fundamental Elasticity in the Fact. Fact or the Universe of Being-Power strained into any form stresses to regain the original form: a law illustrated as we can see in the realms of Matter, Life and Mind. The Point is the Continuum strained (that is, condensed) into the form of maximum nonextensivity and maximum intensivity;-a strain that we before expressed as a change of "sign" or as one in which the Continuum becomes inverted. Since the Point is "the limiting position" of straining in this sense, it is also the limiting position of stressing to regain the continuum-form. In other words, the state of greatest involution or condensation is also the state of maximum potency for evolution or expansion.¹

The intermediate values of efficiency may, accordingly, be looked upon as the intermediate positions reached by the Point in its essay to regain the Continuum form—the *minus* or inverted Form in its stress to "realise" the *plus* or direct Form. This fundamental stressing is illustrated in the mutual attraction of the positive and negative poles and charges; in that of the sexes down to the sperm-cell and the ovum-cell; in that of the Ego for its object or Non-Ego.

The underlying idea of the well-known Hymn in the *Rg-Veda* in which "Aditi" is stated to be the mother of "Dakşa" as well as the daughter of "Dakşa," is what we have explained above.² There is no doubt that "Aditi" (what is not divided or polarised) means the Continuum in the

¹ Cf. The mystic passage in the Ups. which says—Brahman, having evolved the world, *involved* Itself into it, and every little bit of it.

² Rgveda, X. 72. 4.

literature of the Vedas,¹ though this basic idea may be there in it in various "relative" forms also (e.g. "Aditi"=the stretch of the Earth, etc.). The term "Daksa" which literally means "what grows or evolves", means the "seed" or the Point as we have conceived it. "Aditi" being the mother of "Daksa" and "Daksa" being the father of "Aditi"means, therefore, the Continuum of Being-Experience " condensing" or "straining" perfectly into the Point, and the Point stressing again to become the Continuum. Fact-Elasticity which expresses this phenomenon of involution and evolution is sought to be expressed by the paradoxical " myth " of "Aditi" being the mother of "Daksa" and "Daksa" being the father of "Aditi". "Dyauh" (translated as Heaven or Sky), "Prthivi" (translated as Earth) and "Antariksa" (translated as the 'space' between)-which are said to be the progeny of "Aditi" (the mother of the "gods,") are not, as we may further point out, crude conceptions, but they are symbols for opposite poles (such as opposite electric charges, opposite sexes, Ego and the Non-Ego, and so forth) and the separating "medium" between them.2

The Continuum in straining itself into the Point does not, as we have seen, cease to be the Continuum, and yet a change of sign or direction or order is thereby produced. This can be expressed by saying that a separating medium ("Antarikşa") is created between them. And it is clear that this medium is not of finite dimensions—it is an infinite separating medium; so that an infinite stress is necessary to reverse the "sign" of the Point and make it the Continuum with the positive sign. This makes evolution in Matter, Life and Mind not only an unending process, but one behind which an infinite dynamism works.

¹ Cf. Rgveda, I. 89. 10.

² See our Japasūtram for detailed, systematic exposition.

That the Continuum and the Point in these senses are: ever in a straining-and-stressing interplay-that, in other words, the former is ever condensing itself to be the latter and the latter is ever expanding or "swelling" to be the former-is a plan that we discern everywhere in the constitution and working of Nature. In the material world, the Point is "represented" so far by the electrons and protons and the Continuum ("Aditi") by the Æther or any other medium like this; in the living and feeling world too, the Point is masquerading as the "life-atom" and the "Ego" and the Continuum is represented by the "life-æther" (a common element of life) and the "consciousness-æther" (a common element of consciousness or "sub"-consciousness). In Biology and Psychology these "common elements" are not yet generally and positively recognised, but they are called for in the interests of science demanding a broader outlook and a wider perspective.

The recognition of the intermediate positions in the curve of involution and evolution is tantamount to a recognition that the Continuum as well as the Point have "relative" forms as distinguised from their ideal or perfect forms. The atom of matter is, in this way, not the perfect Point, but a relative form having a definite position in what we may call the "Point Curve" or "Point Series." The electron has another position—possibly somewhat nearer to the ideal position. On the other hand, the Æther of Physical Science or the Four-dimensional Continuum has a position in what we may call the "Continuity-curve" or "Continual Series."

Suppose we take a spring of wire of infinite dimensions and by means of an infinite force press it into a "point." Clearly, that point will be the position of maximum condensation of the Being-Power of the spring of wire. If we suppose further that the squeezing of the spring is a phenomenon happening in time and in some order of co-existence, the process of the infinite coil of wire being reduced to a point will be represented by a *series* of positions, each analysable into the three co-ordinates of space and the fourth co-ordinate of time. This will mean that we shall have a series of coilconditions from the condition of Infinite diffusion or relaxation to that of infinite condensation or potency. This series of intermediate efficiencies will give us an ascending series of intensivity, or what comes to the same thing, a descending series of extensivity. The "sense" of the series is reversed when we start with the "point-spring" and trace its gradual "uncoiling." There we get a series of point-condensations, the ideal or limiting position of which is the Point itself. The electron or corpuscle, the cell and its nucleus, the mind with its Ego—these all have their definite positions in this latter series.

The intermediate positions of Being Efficiency (as we understand them in the light of the above mechanical analogy) may be described as "crusts" or "sheaths" with reference to either limiting positions or ideal—the Continuum and the Point. In a vortex-ring atom, for example, the Point is represented no doubt by the centre of the vortex motion, but it is there as associated with a certain system of "sheaths" represented by the vortex. The central charge round which the electrons are supposed to revolve in the atom is, again, the representative of the Point; and the groups of electrons themselves in their different "orbits" stand for the "sheaths." Similar is the arrangement in a cell of protoplasm.

The individual mind is also similarly constituted. The Point is there represented by the Ego—the Individualizing and "I-making" Principle.¹ And round this is organized the Continuum in a series of consistency or concentration—giving it a system of "sheaths" or "crusts." A "sheath" is simply an intermediate position of Being-Efficiency lying anywhere

¹ Ahamkāra.

between the two ideal positions of Continuum and Point. Between the "sheaths" of one individual, A, and those of another, B, the difference is not in respect of substance, but in respect of the positions of the sheaths of A and B in the series. A is an arrangement for making a certain "section" of the whole series of values—for practically accepting the values P, Q, R, for example, and rejecting the others. B is an arrangement for making a section seizing upon M, N, O, for instance. A and B may partly or very nearly agree. Thus A = P, Q, R; B = P, Q, S, or P', Q, R, and so on. In such cases A and B may recognise each other as of the same kind.

Now, such an arrangement of a Point "associating" with itself a certain kind of "event"-apparatus or "sheaths" in the Continuum, and, thereby, representing practically a certain value or position of Being-Efficiency in the series, is called a "Centre." And the "sheaths" practically thus associated may be called the "apparatus" or "body" of that "Centre". It is unique in this sense.

The apparatus or body of any "Centre" is thus a scheme for making a special selection from the totality of Being-Power. A Hydrogen atom is thus an apparatus different from a Helium atom; a vegetable cell is an apparatus different from the animal cell; the mind of a Kant as an apparatus is special in point of both action and appreciation.

The question of the Fact changing or not changing ¹ has been shortly discussed by us in another place, and we need not now re-open it. We have seen reasons for believing that the Fact has a "no change" as well as a changing or moving aspect. Such reference in terms of aspects undoubtedly implies some kind of analysis and abstraction; but *any* thinking or talking about the alogical will imply this. No-change and

¹ Kṣara and Akṣara. Cf. Gitā, Chap. XV, 16, 17, 18; in Chap. VIII, Akṣaram is called 'Paramam Brahma'. change are "poles" of thinking, which cannot really be taken in isolation from each other. Emphasis may be laid now on this and now on that "pole" of the relation; and often this is determined by practical considerations or the dominating view-point and interest of the moment. We may, accordingly, speak of a "no-change series" and a "change series".

Pure Being and Consciousness, Power-to-be-and-to-become as such, the fundamental Types or "Ideas" (in the sense they were understood by Plato), and the Basic Causal Skeleton of the universe—are terms of the "no-change series". And amongst these terms—we are here not concerned with their *relative* positions in the series—a prominent one is this that the Continuum of Being-Power involves itself into the Point and the Point evolves back into the Continuum. This may be called the Law of Rhythm or Cycle, and it seems to be fundamental.

Persistence and repetition of certain Forms is not a less outstanding feature of nature-experience than change and appearance of novel forms. In the world of minerals it seems to be a correct position that "Nature left to herself always tends to build in crystalline form", and the crystalline-form, inspite of eccentricities and deviations from the pattern in individual instances, means a persistent form tending to reproduce itself in concrete instances. If the present view of the atomic constitution be held to be correct, it shows the atoms of matter to have an essential similarity of constitution which is commonly described after the "planetary" pattern. The ways of matter also fall into certain fixed groups which are called "uniformities" or laws. The "law of octave," for instance, has proved a very interesting and instructive law connected with the properties of the "elements". Coming to the changes of configuration of matter, we have, for instance, Newton's Laws of Motion and Gravitation and also

the amended forms (involving "tensors") required by the Principle of Relativity.

In the living world, Prof. Bergson's "creative impetus" notwithstanding, the feature that presses for an explanation more than anything else is "variation" rather than "reproduction" and likeness. Why are the individual members of a species not the exact "copies" of one another? Why do some members deviate from the species far enough to constitute what is called a "variety"? The hypothesis of the slow accumulation of slight modifications as well as the hypothesis of "mutation", presuppose a mechanism in the existing stock—or ultimately in the constituents of the germ-cells which render the reproduction of Types not an absolute repetition.

In the world of sentiency, reflexes and instincts, and in the higher planes, consciousness of personal identity, represent, among other things, the element of persistence or fixity; but it is clear that coupled with this element there is also an element of modification or mutability, which renders evolution both in the sense of "ontogeny" and that of "phylogeny" possible.

We need not tarry over these illustrative fields any longer. The apparatus behind all concrete occurrences or instances in the world is a double-acting apparatus—having a "nochange" as well as a "change" component. This is a simple issue which has been often needlessly mystified in Philosophy. No ultimate gain is made in Philosophy by an attempt to deny either of the components—to dismiss either change or no-change as an "illusion". The true presentation of Brahman is an alogical one; but once a logical presentation is sought to be given, it ought to be perceived that Brahman is presentable to us in "poles" or "aspects" only of which "no change" and "change" (Akşara and Kşara) are a most prominent pair.

The Philosopher who "intuits" the Fact as absolute nochange, and he also who "intuits" it as pure change, movement, drift or "duration"-both go beyond the simple fact of intuition, which gives the Fact as unthinkable and unspeakable. Each has unawares cut up the "Aditi" or "Undivided", and makes 'her' Diti-the mother of the 'demons' (the 'quarrelling elements'). It is one of the commonest as well as the most dexterous feats of pragmatic "surgery" to operate on Experience under spiritual chloroform or other anæsthesia. Such operation, no doubt, has to be made upon Experience; or else, life as we have got to live it would be impossible. With the Whole or Entire, "life" has no business to do.1 It is convenient, too, that the operation should commonly be performed under what we called "spiritual chloroform". But the philosopher must note that it has been so performed. Non-entry in his "note-book" has proved a fecund source of many a mistake and illusion. Nothing ought to be plainer than the continuous universe of experience at any moment-the Fact-, and yet, nothing has been more persistently ignored, not merely in lay appreciation and description, but also in psychology. Thus we are always having this or that sensation, this or that idea, this or that desire or emotion in our lives.

Nothing, again, is plainer than this that the Experience-Whole as such is the "indifference point" (to use an expression that became classical in Schelling's Philosophy and also in that of later Fichtian "Absolutism") of Subject and Object, Cause and Effect, Being and Power, Change and Persistence, and similar other "polarities". It is the Neutral Stuff as the Whole, though polarities may, and often do, exist with reference to defined and discriminated realms within it. Now, thought and discourse are possible not in regard to the Whole, but in regard to the realms defined in it, <u>Māndūkya Up</u>. calls Brahman—" avyavahārya" ("unusable").

and that are defined in the course of the thinking and the talking.

There being a series of effective values between the Continuum and the Point, there will be a graded order of "Centres" and their apparatus in respect of Being-Efficiency. This will mean that a Centre, A, will possess an apparatus made of a material and involving an efficiency which, judged according to a standard practically settled upon, will be of a "higher" value than that of another, B. In this way, an animal possesses an apparatus of "greater" value as compared with the plant; the plant of a greater value as compared with the crystal; and so on. The manifestation of apparatus of higher and higher effective value is the meaning of progressive evolution.

The apparatus or body of A itself may not be "homogeneous" in texture and distribution of efficiency. Since every apparatus represents a particular position in the series of the Continuum condensing itself into the Point, or inversely, that of the Point "swelling" into the Continuum again, its structural as well as functional composition will be a certain ratio of the involution and evolution of the Continuum or of the Point. Thus one apparatus, A, has this ratio (i/e), represented in its structure as well as in its efficiency in a manner different from that in which the ratio is represented in B or C. Since, again, apart from this ratio (i/e), A = the Continuum or the Point, that is, the perfect universe of Being-Power either in extensity or in intensity, we have A = Brahman = Bindu ("Point"). But, practically, it represents a certain position in the scale of involution or evolution-a certain ratio of i and e. Hence, structurally as well as functionally, it represents a certain ratio of the Continuum of Being-Power. Which means in plain language that the Infinite Being-Power is involved in A to a degree and is evolved in it to a corresponding degree. A floating ice-berg conceals nine-tenths of its whole mast in the

depths of the sea and reveals the remaining one-tenth: this represents the ratio of i to e in its case. A vast amount of force is "static" in the atom in ordinary circumstances, and this static, equilibrated energy becomes kinetic in radio-activity or in 'fission' or 'fusion'. In every material "apparatus", energy is given in "static" as well as in "kinetic" state, and it is the ratio of these two that determines its actual behaviour. The life of the living cell consists chiefly in transforming kinetic energy into latent or potential form and the transforming of this latter again into the former. This is the essential feature of cellmetabolism. The function of the special glands (pituitary, thyroid, etc.) upon which the investigations of Blyss and Stirling and others threw so much light, is a more emphatic and interesting case of this energy involution-and-evolution. In the ordinary cells of the body, the ratio i/e is apparently represented by a "low" figure, but in those groups of cells that are called the pituitary and other glands, the ratio is remarkably high: so much seems to be latent in these glands. that its becoming patent or released in part is followed by very marked structural and functional changes in the organism.

The mind (as venting itself in a threefold stream of torpor, instinct and intelligence—to borrow Professor Bergson's classification—) is, also, apart from all theories dating from the time of Descartes and his followers that have conceived the organism as an "automaton" or machine, a "tap" through which incalculable energy is being apparently drafted into the universe of matter; a volition in the mind becomes, for example, a source from which, apparently, much energy is introduced (some would prefer to say, "released", others "redirected") into the nerve machine, and through that into the surrounding system. Memory, attention, and so forth, show that Power involved in the Mind is being evolved. So that on the strength of these *facts*, which no theories can afford to explain away, we may say that the Mind, too,

represents a certain ratio of i/e of the Cosmic Fund of Being Power.

Now, it means that in each "centre" of these types we have "the floating ice-berg" condition illustrated as regards substance and energy. That is to say the apparatus or body of every centre consists of a series of "sheaths "1 or "envelopes" in and through which the Cosmic Being-Power has both involved and evolved itself in a given manner. In any given type of apparatus, A, the envelopes (for involving and evolving Being Power) have a relatively equilibrated condition, but there is no permanent equilibrium. The atoms of matter were, classically, the "indestructibles"; in fact, it was considered to be one of the merits of the Helmholtz-Kelvin "vortex-ring" atom that, on hydrodynamical considerations, it was proved to be neither "naturally" creatable nor naturally destructible. But the "spontaneous disintegration" in Nature as also the later 'voluntary' disintegrations of radioactives in the laboratory, of the atom which is now evidenced in radio-active phenomena, is evidence that the atom represents but a condition of relatively permanent equilibrium of mass and energy. What is true of the atom is true to a more pronounced degree in the case of other kinds of Centres. The life of each is a life of ceaseless activity and ever wakeful dynamism. There is no absolute "torpor" or "inertia" anywhere.

The two terms of the ratio i/e are both variables and not constants. The ratio r, varies not merely from A to B, and from B to C, and so on, but it varies in A itself. Hence if we represent the structural and functional apparatus by the equation A = f(r), we must have different values of A corresponding to different values of r. But the curve of the variability of r remaining within certain limits, we may, practically, regard A as remaining the same A. The consciousness

1 Kośa.

of the "identity" of concrete substances is, therefore, a pragmatic consciousness. The envelopes are of a varying degree of involution-and-evolution index. Physicists speak of "the refractive index" of a given medium as compared with another, *e.g.*, air and water. So also we can speak of the "in volution-index" or "evolution-index" of a given envelope as compared with another.

Every Centre has a system of envelopes, each with an evolution-index of its own. And since the Centre is really =the whole Cosmic Being-Power in a certain position of its involution and evolution, we can legitimately think that in each Centre the Cosmic Being-Power is represented by an infinity of envelopes. But practically only a few of these are "requisitioned" by the Centre in question. Since, again, the Centres form a correlational system, the question as to what envelopes are and what are not "requisitioned" in a given case, will have to be decided with reference to three viewpoints: (a) the view-point of the Whole: (b) the view-points of a given Centre itself: and (c) the view-point of other Centres that are in conventional co-operation with it. From the first point of view, each Centre possesses an infinity of envelopes: from the second and third, it possesses but some. But in these latter cases, there may be a difference. A lump of "brute" matter practically "presents" to us but only one envelope-what we appeciate as inert, ponderable, impenetrable matter. It does not not present to us the "life-envelope" or the "mind-envelope." But this does not necessarily mean that in itself, and to itself, it possesses the one envelope only; or that with a change taking place in our apparatus of appreciation and convention, it may not present to us the life and mind-envelopes hitherto unrecognized in it.

We have elsewhere¹ defined the Adista of a particular Centre as the character it possesses by virtue of its position in

¹ See The World as Power, in two volumes, before referred to.

the cosmic system, and its Karma as the activity by which this position is ever sought to be altered.¹ Every centre is a function of the ratio between these two—a and k (nearly analogous to the anabolism and catabolism in cell-metabolism). The apparatus of a Centre varies as the ratio a/k varies. Now, suppose, we take two centres, X and Y-a conscious entity like myself and a lump of matter. Omitting all other Centres. we may say that the character of Y-namely, whether it is "living" and "conscious" also-will depend upon four things -(1) the *adrsta* or "positional index" of Y, (2) the karma or "kinetic index" of Y, (3) the positional index of X with reference to Y, and (4) the kinetic index of X with reference to Y. So that with a change materially affecting any one of these conditions, we may expect to find a change in the character of Y. The question of envelopes therefore, reduces itself to a question of conventional view-point.

Since the Brahman has involved itself in every-thing,² —the Continuum involving itself into the Point and the Point evolving as all things—, it follows that distinctions between Matter and Life, Life and Mind are due to their positions in the infinite curve of involution and evolution. And it is important to note these positions are determined by the action of the Continuum involving itself into the Point, and the reaction of the Point evolving to become the continuum again. These two are the components producing the resultant position. The actual "position" of a plant, for example, is determined by the action or impetus of the seed to become a full-grown tree, and that of the full-grown tree to produce the seed. The "forward sweep" and "backward sweep" the outgoing current and the return current are concurrent in every case, but their ratio varies. And the varying ratio

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1 Cf. Dik and Kāla in Nyāya Vaišesika.

² "Tat sṛṣtvā" etc.-Taittiriya Up. before cited.

determines the actual position in a given case. Stated in other terms it is the 'co-efficient' of elasticity. A man and an amœba, an amœba and a block of stone thus have varying co-efficients of elasticity which assign them different positions in the cosmic economy.

The Continuum is the Brahman with the plus sign, and the Point is the Brahman with the minus sign; and a "circuit" of movement is established between them. The position of anything in this circuit or curve is determined with respect to three co-ordinates—the co-ordinate of the involution and the co-ordinate of evolution—these two general co-ordinates; and a third special co-ordinate which we suppose to be the Karma of the thing itself whose position in the circuit we may be investigating.

The difference of "sign" between the Continuum and the Point may be supposed to be expressed as a difference of "pressure" or "potential". The Continuum involves itself as the point in order that there may be a "field" with an infinite difference of potential or pressure; and this difference is needed for "flow", "current" or movement. *Jagat*, which comes from a root meaning "to move" or "to go", becomes possible only in so far as a such field of different pressures or potentials is created. A perfectly equi-potential field is a condition of equilibrium and quiescence.

We are not thinking of the Fact after what one may be inclined to suppose mathematico-physical analogies. These are not analogies but illustrations of Fact-conditions: the difference of potential, circuit etc. being physical interpretations of conditions that are not non-physical, but more than physical. So, again, the fundamental laws of Matter are illustrations in restricted realms of laws that obtain in the universe of Experience-Whole itself. Just as in Physics we have to-day the "Generalized Principle of Relativity" so in the Science of the Fact we should expect to meet "generalized

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principles" which have their special applications in the realms of Physics, Biology and Psychology.

The special entities-Matter, Life and Mind-treated in these sciences are "co-substantials" and "co-efficients" so that Mind, for instance, may be regarded as matter " in the sixth or seventh" state, just as Matter in the form of electrons was regarded as "Matter in the fourth state" or "Radiant Matter" by the late Sir William Crookes. The imponderable æther, which was later believed to be a quasi-material medium by its adherents, is also matter in a still higher state-possibly the "fifth". Some fundamental laws of matter such as the laws of motion are found to hold good in the realm of the fourth state, and are believed to hold good in that of the "fifth"-the æther. Of course some of the laws have now to be restated in terms of Relativity ideas. But in every case it is but reasonable to infer that such "generalized" and " purified " laws and principles will apply to the realm of the sixth and seventh states also-in fact, to the mind. Thus such ordinary processes of the mind as perception and volition must be understood on what we may call a "physical basis", and on the other hand, such physical phenomena as orbital motions of the electrons in the atom or possibly even the orbital motions of the planets round the sun must be understood on what we may call a "psychical basis".

We have studied the Vedāntic theory of perception as illustrating this rapport of Physics and Psychology in another place.¹ Here we observe this: Being-Efficiency is one and continuous, but it presents itself as an infinite series or rather as a "circuit" with oppositely signed "currents" or "flow". Now, some of the terms of this series—that is, some planes of Being-Efficiency are pragmatically looked upon as constituting "matter", and certain others as constituting "life" and "mind". These are convenient labels attached to some terms

¹ The Power As Mind in The World As Power.

ONE AND MANY

of the series or some positions of the continuous curve of Being-Power as distinguished from some others. As we have before explained, with a change in the angle and direction of the "orientation" of the apprehending and appreciating Centre, these labels are likely to change also.

As in "mathematical induction" we infer from certain relations obtaining in some observed terms of a series to terms not observed or demonstrated, so, we may suppose, we can infer from certain fundamental relations actually holding good in the "realm of matter to those relations, also holding good in the "higher" realms of matter. Of course it may not be easy to decide what principles are and what are not "fundamental" in physics, but a presumption ought to stand that every principle found to hold good in matter will also be found to hold good in life and mind in a "generalized" form -unless the contrary be found to be the case. And it must be remembered that our "hypothesis" of certain terms of the "matter series" may be one thing and the actual terms themselves may be another thing. The Dalton hypothesis of the atom started with hard, invisible and indestructible corpuscles; the Æther hypothesis, again, generally imagined an imponderable substance which yet possesses inertia; and so on. It was naturally thought, therefore, that certain relations (for example, "transmutability" and "destructibility") did not apply to the atoms; that certain others did not apply to the æther. These were excluded by the very "terms" of the hypotheses framed. But were we, after all, justified in framing hypotheses on those terms?

We do not propose to pursue this subject further at this stage. We said that the position of any thing or "Centre" in the curve of involution and evolution will have to be determined with reference to three co-ordinates. The "outgoing current" and the "return current" are two of the coordinates, as we have seen. This, in plain terms, means that

every "Centre" is caught in an infinite circuit of movement which in the Vedānta is called *Saṃsāra* or *Saṃsṛti* (from the root, Sr = to move). It is a cosmic impetus and movement, into which every Centre or being is "drawn" or rather, of which the movements of all things are the components.

But does this imply either that the cosmic circuit is a mechanical spinning round and round or that the movement of any "Centre" is a purely determined element of that cosmic movement? Does the cosmic plan exclude both novelty and freedom?

That there are cycles in cosmic affairs and that particular Centres are in those cycles-is a fact which no amount of metaphysical mystifying ought to obscure. But, on the other hand, it ought to be plainly recognised also that the essence of the being-activity of the Cosmic Impetus as well as of the "life" of any Centre in the cycle or circuit, is spontaneity and freedom. It is Līlā, Krīdhā or Play, as the Upanisads never tire of telling us. Brahman as such is "playful"-and this must be understood in the fullness of its significance: It is playful as the Continuum. It is playful as the Point. And it is playful in every position in the involution-evolution circuit between the Continuum and the Point. It is so because the essence of Being is Ananda-an untranslatable word like Cit and Sat, but which we may partially render as "Joy". The cosmic circuit and a Centre's being in that circuit does not, and cannot, make that Centre forfeit its " birth-right " of Joy and Freedom which is the effective index of Joy. Play is its effective manifestation.

This basic idea of *Ānanda* and *Līlā* (Joy and Play)—in which we touch the keynote of the philosophy of the Upanisads—has been slightly developed by us in another Chapter, and more fully in other books. Here we note that the third —and in one sense the most vital—co-ordinate defining the position of any Centre in the cosmic circuit is the "Joy Play" of that Centre itself.¹ Pragmatically this factor of Joy-Play of a Centre seems to be conditioned by the stresses of the cosmic circuit; but it is never annulled or suspended. Any Centre, though it *has* to behave in a certain way by the circumstances of the "assigned" case, has also the inalienable right to behave as it pleases, and this right *is* ever more or less exercised by it.

If it were really a finite, small thing, we might expect it to be "caught" in the net of cosmic determination; but it is only pragmatically and conventionally a finite, small thing. Actually it is the Continuum-Point in a certain position and posture of its "free hide-and-seek", involution-and-evolution Play-a process undoubtedly involving rhythms and cycles, but also original and novel impetuses. Its (that is a Centre's) play and freedom is really the freedom and play of the Continuum-Point: a statement which does not mean that a Centre is but a "toy" in the hand of a Power transcending its being, but it is, being of the essence of that Power, its own master. Pragmatically, the "toy-view" often prevails; so that we distinguish between the "toy-Centre" and the "Master Centre", and call this latter-the Continuum-Point as suchthe "Antaryāmin" ("Inner Controller") or "Paramātman" ("Super-Soul"). Really, this is a distinction without any but pragmatic difference.

IX

THE PRIMARY BASIS

BEING-Consciousness-Bliss with its characteristic effective manifestation-"Play", is recognised by the Upanishads as the essence of Being-Power in any form. The idea of "Form", -"continuum", "Point", "Centre", "Apparatus"-we have tried to develop in another lecture. By a "Form" the Being-Power is, or may be, variously "veiled and treated" no doubt, but in essence-that is, as regards Being-Consciousness Bliss and Joy-Play-it never ceases to be itself. This means that in any form of being, say, a lump of matter, these essential characteristics are given. In fact, characteristics may be, from our limited and pragmatic point of view, considered as variable and as invariable. The former may be in some forms but may not be in others; but the latter are in every form. Since, however, any form is really a form of the Continuum-Point-since it represents a position of the Continuum involving itself into the Point and the Point evolving to become the Continuum-, it follows that every form is really (that is, apart from pragmatic limitation) the Whole: in other words, it is a "monad"-a free and playful monad having "windows" 1 for communicating with other monads. Through these windows, however, monads ordinarily hold partial parleys with one another; hence, pragmatically, each appears as a "section" of the Whole, including some features and properties but excluding others.

¹ Cf. Leibnitz.

Yet there are certain characteristics which we may regard as fundamental or essential. The red of the rose flower is apparently not in the green of the rose leaf, and vice versa; and yet, both the things have weight, extension, inertia, motion, and so forth. The question is a question of "common denominator" as between the petal and the leaf. A group of characters will represent that. Then, a third object may be taken into account, and we may try to find the common denominator of these three things-A, B, C. And so on. Now, our point is that Being-Bliss-Consciousness and Play represent the universal common denominator of all forms of existence. Thus even a particle of dust or a drop of dew is a measure of Joy-Consciousness and an apparatus for Play. And it is a measure¹ only with respect to our ordinary "frame of reference" the frame of convention. Else it is the Whole.

In fact, the frame of reference with respect to which a thing or fact is measured and defined is several, and not one. The world of "objective" realities is constituted of things and relations as determined by the free involution-evolution Play of the Continuum Point. By "free" is meant that the cosmic process is not a dreary, monotonous folding and unfolding, but that in every detail as also on the whole there is freshness, novelty and originality. Prof. Bergson's philosophy has done a great service to the cause of truth by bringing this aspect of evolution into strong and clear relief. Everything is something new; every fact is also something new. But the type and the rhythm are also there. Plato's contribution to truth is also real and abiding.

It is not that typal and rhythmal conformity only is ensured by the cosmic Stress leaving to the individuals some margin or latitude for initiative, departure and play; in other words, we are not to understand that the "law-abidingness"

¹ Mātrā

of things and facts in the world is due to a cosmic component and the eccentricities and playfulness due to individual components. No sharp division of dynamism should be thus contemplated. The cosmic Stress binds and yet does not bind; it can circumscribe but not efface the inalienable right of things to be and act as things in, and of, *Brahman*—as "points" through which the Cosmic Being-Bliss-Play Principle vents itself as individuals or particulars. In so venting, it measures and defines Itself no doubt, and measuring and defining proceed according to "law"¹; but nowhere in this process does it surrender or lose its essential character which is Being-Consciousness-Bliss-Play.

The other frame of reference is that of the individual Centre itself, and there are as many different frames of reference as there are individual Centres. A number of Centres, A, B, C, D, may, however, form a class, so that their frames of reference, without being coincident, may overlap and agree. So there is what we may call our "normal universe of convention". Certain values have actual or possible "currency" in this our market of convention; others have no such "currency". A grain of dust, for example, may really be a "Centre" of Being-Bliss-Play, but the two latter terms Bliss-Play have no currency in our common "Stock-Exchange".

The scientist's "Stock-Exchange" is not the same as the layman's. And 'in Science, too, there is not one unvarying frame of reference. The frame of reference, as defined by the improved methods and instruments of observation, experimentation and calculation (e.g. the Relativity Calculus) in the twentieth century substantially differs from that of the preceding century. Practically in every sphere, new findings and indications have been the harvest reaped in the fields where these improved methods

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¹ Rtam Satyam.

and instruments have been applied. And, surely, nobody will claim any finality in these methods and instruments —that the present "expert" frame of reference is sacrosanct and inviolable. The ubiquitous "series", therefore presents itself as regards these partial and "progressive" frames of reference: we have "frames" corresponding to the conventions of A-class, B-class, C-class, and so on; these "frames", judged according to a standard of evolution, may be considered as higher and lower; what, then, is the "frame" in its "limiting position" or perfection? This question, we may passingly remark, has been at the root of "Revelation" or Veda (from vid = to know) which the Vedānta accepts, in common with many another ancient thought, as its last and supreme authority.

Barring this "Limit", we have a multiplicity of frames of reference, and we have really no right to reserve "frames" for ourselves only, or for the higher vertebrates. To deny "frames" to the lower species of animals, plants and minerals, is practically to beg the whole question that in these Consciousness-Bliss-Play aspect of Being-Power is non-existent or undeveloped. It is the non-existence or latency of this aspect or expression that is the subject of proof. If this be proved, the dust-particle or the dew-drop is not a frame of reference in the sense we are: but if this be disproved, it is. The question, therefore, is this: Are there general proved, or self-evident premises from which the fact of a dust-particle having Consciousness-and-Joy-Play of its own can be deduced? Or else, are there signs or indications which may enable us to infer the possession of this by the particle? If this possession be proved, the particle shall have its own frame of reference; its Joy-play or Karma, and, therefore, its own component in the resultant position it occupies in the cosmic system.

The general premises are supplied by the "Theory" of the Fact or Experience-Whole that has been outlined. Every

Centre is a Centre in, and of, this Experience-Whole. A Centre, again, is a special position of the Whole regarded as the Continuum and as the Point. Now, if the Whole be essentially Being-Consciousness-Joy-Play, the Continuum-Point is also so; and the Centre, as a special position (especially measured and defined) of the Continuum-Point, is so also. In order that this conclusion may be true, two propositions must be true: (1) the Whole is essentially what we represent it to be; and (2) the special defining and measuring by which a particular Centre is got, does not make that essence cease to be in the section defined and measured.

If we consider the *nature* of the defining and measuring operation in Experience, we find that it is only "veiling" of the actual given and not its effacement. In other words, the actual whole of experience never ceases to be such, when by an "apparatus" a cross-section is made from it, and that cross-section regarded as the experience of the moment. Veiling means the ignoring of what is actually given in, and as, experience. Of this three kinds should be distinguished: (a) the veiling of actual experience by the pragmatic interests of a given Centre itself (e.g. in the case of my perception of the star Sirius in a glance at the sky at night); (b) the veiling of the actual "life" of experience of a given Centre by another Centre or group of Centres, for example, I, representing a particular pragmatic apparatus for special kinds of apprehension and appreciation, may "acknowledge" but a part of the actual life of an animal, a plant or a mineral, and ignore the rest. It is evident that with a change in my apparatus or frame of reference, the mode as well as the extent of veiling of another Centre will also change.

Hence if we represent the acknowledged or recognised part of a Centre's actual life by y and the stresses constituting my apparatus of apprehension and appreciation by x, then, clearly, y = f(x): that is, y varies as x varies. And as in mathematics we have an expansion-series (as defined by the Taylor's Theorem, for example) of a given function, so here also, we have an expansion series of the values of f(x); and it is an interesting consideration how these values change as those of x change. And particularly interesting is the case in which x is put = the Continuum-Point itself. There the question is this: what is the actual life of a given Centre, y, as apprehended and appreciated by the Continuum-Point "apparatus" or frame of reference? This question answered gives us the *complete* reality of the life of y. The complete appreciation of the life of a Centre or totality of Centres means its "Veda". And we may say at once that our "Continuum-Point" is what in the "older" Vedic literature (Samhitās and Brāhmaṇas) figures generally as "Prajāpati" or the Lord of the Created, and latter as *Iśvara*" (or Lord). Now, the two kinds of veiling above explained related

Now, the two kinds of veiling above explained related to inter-central convention and transaction. We assume that there are a number of Centres in the Continuum; and then enquire as to what is meant by these Centres bargaining with one another. Such bargaining presupposes, as we have seen, that there are a number of special apparatus for apprehension and appreciation (by "apprehension" we mean what a Centre cognises or feels, and by "appreciation" we mean what it recognises, judges or accepts). These give us special crosssections of the Fact, and the Fact is variously veiled and treated in them. Now, the veiling incidental to such intercentral convention and transaction is the ordinary kind of veiling which, in the Vedānta, has often been called Avidyā (non-recognition).

But we have assumed that Centres are already there in the Continuum. A centre we have defined to be a position in the involution-evolution circuit of the Continuum-Point a circuit in which Continuum-Point, without ceasing to be itself, freely stresses to involve-evolve itself in an infinite curve

of positions, the "value" of each being defined, as we have seen, with reference to three co-ordinates, the third of which is the "Joy-Play" of the positional existent (a Centre in a particular "position") itself. The "position" is in a Continuum of we do not know how many dimensions, but of which the three dimensions of Space and the dimensions of Time are *some*.

But a positional existent is not defined exclusively by its "Joy-Play" (or Karma) alone. It is defined by a cosmic component also. In other words, a Centre is constituted a Centre, a positional existent is made as such, by cosmic stresses. A posteriori also this seems to be the case. A particle of dust or a dew-drop has an individual being of its own, and the "centre" or "nucleus" of the individuality is represented by the Point operating in, and as, it-this is perfectly "condensed" Being-Power (Brahman) operating in, and as, it. This nucleus of individuality is the infinite potentiality of Joy and infinite capacity of Play. But this nucleus is practically-that is, with respect to the frame of reference of the involution-evolution-curve-determined by extrinsic or environmental factors also. So that if these factors do not exist or be altered, an individual object will not practically be what it now is: a dew-drop, for instance, is not a dew-drop in an enveloping world in which certain conditions do not exist or exist in an altered form. And the enveloping order being an "interlocked" stress-system leaving no real zones of isolation, the introduction of a new condition or the elimination of an existing one anywhere in the unbounded system, will affect the dew-drop. In treating of an actual dew-drop on a yonder rose-petal it may be convenient to limit our data of conditions practically to those in the neighbourhood or those that have a "large" share in the occurrence of the phenomenon. But this is a pragmatically useful but not scientifically safe procedure. 2

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The dynamics of Galileo and Newton still practically hold no doubt; but with the advent of relativity ideas it has now been found to be a "first rough sketch of Nature". So our ordinary account of the dew-drop may only be a rough, summary account which, with the march of theory, requires to be "filled in, corrected and amplified". All scientific methods are necessarily, in our planes, methods of approximation proceeding upon "limitation of the data". The gravitational stress between two things is easily calculable (according to Newtonian laws); with the introduction of a third body, the problem (as attacked by such mathematical geniuses as Laplace) becomes highly intricate; but what are the mutual attractions of three bodies in a universe consisting of myriads? The actual immensity of the problem transcends all finite methods of Calculus. Very powerful methods as represented by the Differential and Integral Calculus, the Calculus of Variation, the Quaternions, the Theory of Probability, those of Metageometry and Relativity, and so forth, have no doubt been requisitioned from the armoury of Māyā (the "Measurer") as operative in the human brain; but what are these methods by the side of the infinite magnitude and complexity of the problem as represented by a "tiny" drop of dew or an exploding atom?

Everything is a member of universal stress-system: its membership implies not merely that it is, in being and in efficiency, in-isolable from the universe, but that it is, in a special sense, the Universe. In this way, it may be called a "monad". In accordance with the phraseology we have used, any "Centre" represents a definite stage or position in the Continuum "straining" itself into the Point, or inversely, the Point "stressing" itself into the Continuum.

With reference to a certain realm of convention, the Point-Aspect (that is, involution, folding) may be more emphatic than the Continuum-Aspect (evolution, patency, unfolding,

manifestation). As in the Relativity Theory we speak of a "space-like" event or a "time-like" event, so we may speak of a "Point-like" Centre or a "Continuum-like" Centre. If we put Presentation (with respect to a given frame of reference = P, and non-presentation or Veiling = V, then, the latter may be described as a thing of P-emphasis, and the former as one of V-emphasis. In certain phenomena, again, the striking note is transition, flowing or moving rather than substantivity or stability. These we call motions or processes. Putting Movement = M, we may describe a process as a phenomenon of M-emphasis. These notations we have developed and especially applied in our Approaches to Truth. These world-notations of P.M.V. form a part of the fundamental "vocabulary" of Indian Thought; these are the famous gunas-Sattva, Rajas and Tamas respectively. Evidently, P.M.V. are the components of the Supreme Measuring and Defining Impetus $(M\bar{a}y\bar{a})$ we have discovered as operating in the bosom of the Fact or Experience-Whole.

Now, V is the inverse of P. Representing the "sense" of P by the positive sign, we can represent that of V by the negative sign. This means that in things of V-emphasis with respect to a certain frame of reference the "sense" of Being-Efficiency is opposite to that in things of P-emphasis. This difference of "sense" or sign is implied in that between the seed of an oak and the grown-up oak, between a field of kinetic energy and one of latent, statical energy. In such cases, the opposition of sign is easily recognised.

But it is not as readily recognised that a grain of dust or a drop of dew is, also, with reference to our ordinary standpoint, a thing of V-emphasis. And yet Science shows that it is, in one sense, so. Millions of molecules (sometimes diagramatically arranged, as for example, in crystals) are "conglomerated" there in that grain or drop. We do not commonly suspect that it is so. Again, within each molecule atoms are arranged in more or less complicated configurations (as for example, in the benzene molecule). To our ordinary, lay vision all this "scene" remains folded up. Then, again, within each atom we have a "planetary system" of protons and electrons—an atomic universe lately discovered. This shows that the constitution of the dew-drop is from our common pragmatic point of view, a constitution of V-emphasis. The "sense" or sign of this is changed—V becomes P—to the extent that the drop of dew actually or analytically "evolves" into a veritable universe. To that extent, a "Point-like" Centre becomes a "Continuum-like" Centre.

But it may be thought that Physics, though it shows us the dew-drop with its "sign" changed in the sense above explained, does not yet show us that it is a "Joy-Play" Centre. It does not yet; but we cannot dogmatize about what Physics may or may not show us. Already, beginning with the close of the last century, Science has been showing us too many unsuspected wonders hidden in the "small" as well as in the "great" things for us to remain light-heartedly or doggedly sceptical. The surprises, Science has "flung upon" us, have certainly raised in us an expectancy looking out for more.

It will not do to urge that the new discoveries have all tended to show the grain of sand or the drop of dew to be more and more "material" and more and more "mechanical". Nor can it be urged that the "materialism" and "mechanism" of Physics have spread and engulfed both neo-vitalism and neo-Psychicism in the realms of vital and psychical phenomena. To some people, it has been well said, science has always been "exploding" one thing or another; but what other things it may or may not have exploded, it is certain that it has not exploded—and is not likely to explode—the pristine mystery and wonder of existence, in "small" things or in "great". As we heard Prof. Eddington

say in another place, the ultimate groundwork of Physical Science is now, with increasing clearness day after day, being perceived as both indefinable and unmeasurable; and even such "current coins" in physical theory as Æther, Electricity, Force, and so forth, have not ceased to be enigmas and inexplicables on account of their currency. Assuming that Physics is able to state everything in terms of the "material" and "mechanical", these terms themselves are now found to be more and more undefinable and unstatable.

Science to-day absolutely refuses to erect a dead buffer against the ancient human quest after the mysterious, the uncommon, the miraculous which has inspired and impelled magic and religion, mythology and metaphysics in all ages and countries. Pantheistic "animism", which appears to have lain at the basis of ancient magic and religion, was all but "burnt to ashes" by the "purifying" fire of rationalism and positivism, but indications are already clear that, like the fabled Phoenix, it is destined to rise from its ashes stouter than ever.

To the "mystic vision" which would still discover an unfailing Fount of Joy-Play in a dew-drop, Science to-day can hardly afford to oppose an absolute or categorical contradiction. On the contrary, the undefined and unmeasured groundwork in which Science ultimately lands us in its analysis of the material universe (not to say, that of the living and feeling worlds) provides a not merely possible but promising framework for constructing a pantheistic animism of the type represented by the Vedānta.

That type of pantheistic "animism" we have already stated to be this: Every Centre—whether a dew-drop or the soul of a man—is the Continuum-Point (=Being-Consciousness-Joy-Play-Immensity) at a certain "phase" of its infinite curve of free involution-evolution, straining and stressing. This in plain yet mystic language expressed by the well-known
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text in the Upanisads which says "All things live in a measure of this Immensity of Joy."1 A grain of sand or a drop of dew is so also. Its being and its acting is a "measure" of the Immensity of Joy (a term that we have been employing for the untranslatable word, Ananda). A "measure" means the Immeasurable measuring or finitising itself-a certain position or phase of the curve of the Continuum freely involving itself into the Point or the Point freely evolving into the Continuum. The Continuum and the Point both are the Immeasurable, though they are of different "sign " or " sense".

The basis of such "pantheistic animism" is to be found in the Fact itself. We have an immediate consciousness of a universe in which we ourselves are in action and reaction with countless other Centres: this is no theory or inference, but an immediate deliverance of Experience itself; we have called it, accordingly, a finding of the Fact. It is true, of course, that the universe of experience, as we live it at any moment, is a universe that is both veiled and treated-one from which many things remain screened away, and one in which " elements" are more or less pragmatically dealt with-; yet between this universe and the larger, the difference cannot be one of kind-the latter being, for example, a world of unknowable "thing-in-itself" which (to use the phraseology of H. Spencer's Transfigured realism) is, at any moment, reflected on the "curved mirror" of the experience in a "transfigured" and "cross-sectioned" manner.

There is no essential dissimilarity between the actual universe of a Centre and what we may call its possible universes, that is, the larger universes we get by making both V (veiling) and T (treating) components approach as near as possible to the vanishing point. As we saw before, starting from the actual universe as the first term, we have a series of universes as V and T are progressively reduced, and the

¹ Brhadāranyaka Up., IV. iii. 32.

limiting position ¹ is reached in the Perfect Experience-Whole or Absolute Fact. Now, our point is that all these series of universes have a community of essential structure and this essential structure is as we find it to be in the first term of the series—the actual universe of a Centre at any moment.

And what do we find that essential structure to be in our actual universe of experience at any moment? However details of structure may vary, the invariable part of the structure is Being, Consciousness and Joy-Play (or Play out of an undetermined Impetus). No experience is there, and no experience is conceivable, which is not this: it is *being*; it is *experience*; it is doing *karma* in the sense of acting in a manner that cannot be *wholly* defined, measured and calculated. "Form" and "Name," as the Vedānta says, may vary, but things of experience do not vary as regards three fundamental characters: that they are; that they are *experience*; that they are "*pleasant*".²

As I have undertaken an examination of these three (that is, three aspects of one) "invariables" of experience in another work³ (written in collaboration with Sir John Woodroffe) now in the press, I do not propose to traverse the same ground again here. I would refer to two chapters especially of that work "Consciousness and Reality," and "*Cit* and *Acit*" (Consciousness and Unconsciousness).

The last of the three variables is the most important and presents the greatest difficulties in the way of our understanding the essential nature of a Centre. We have defined a Centre as a certain "phase" of the infinite curve of the Continuum-Point. The idea of Continuum as also that of Point are both in the conception of Centre: the conception presents the Continuum "pole" and the Point "pole", if we

³ Power As Consciousness, since published (1954).

¹ Niratiśayatā.

² Asti, Bhāti, Priyam.

may so express it. Philosophies, including the different types of Vedāntic Thought in India, have laid their stress differently on the two "poles". Some have leaned to the side of the Continuum, others have leaned to that of the Point: according to the former, a "Centre" is *really* the unbounded seamless Whole,¹ its limitations being pragmatic and apparent only; according to the other "emphasis", the Centre is *truly* of the nature of the Point², its extensity, sphere or field being variable, pragmatic and inessential. The former emphasis gives us the "impersonal" Absolute (of Bradley, for instance in the West) as the *substance* of all being, including that of the Centres; the latter emphasis gives us what we may call " a commonwealth of personalities," in which the supreme as well as the "subordinate" Centres have each its individuality ensured.

In the Vedānta the Māyā-vāda of Šankara on one side, and the "modified" monisms of Rāmānuja, Nimbārka, Madhva, and others on the other side, illustrate, in a broad way, this contrast in the emphasis laid on the Continuum-Point nature of a Centre. It is clear that either view lays emphasis on an aspect or pole only of the actual nature of a Centre.

Let us come back to the Fact. It is a finding (that is no theory, supposition or guess) of the Fact that Experience at any moment is a universe "growing" in a solution of possibilities (as I have developed this idea of "growth" in my work, Approaches to Truth, and also, briefly, in the work above referred to): every such universe involving, in analysis the three "poles" of Base, Index and Co-efficient, and thus forming a "Polar triangle". Of these three, the first two represent two aspects or elements of the actual experience; the third represents its "possibilities". Suppose

¹ Vibhu.

² Anu.

a, β , γ represent respectively the poles of Co-efficient, Base and Index of a given universe of experience. If we put a=0, the universe itself becomes nothing or a universe that is wholly *actual*, having *no* possibilities. This will mean either of two things: (1) an Experience which cannot be regarded as a "universe" at all—and this is the Pure Æther of Being-Consciousness absolutely without forms and determinations. We call this *no* universe, because the basic idea of universe is some posture of the Continuum-Point before explained. By denying all possibilities of change and growth to an Experience, we may reduce it to this kind of Pure Æther: and Māyāvāda Vedānta has laid its stress exclusively on this Experience as the Pure Æther.¹

But (2) it may be a statical, unmoving all-actual universe also. Since according to our hypothesis, it is an unmoving universe, the co-efficient of possibilities (of change and growth) is zero in it. Such a being can be claimed for the "eternal" world of Platonic "Ideas" or the Realm of Universals (Logical and Mathematical Principles for instance) to the acceptance of which Bertrand Russell and others have decidedly leaned. The Sāmkhyan Root Principle² does not satisfy this definition; since according to the Sāmkhyan doctrine it is ever changing, whether in creation or in dissolution.³ Nevertheless it involves a permanent scheme of being and working: it is ever constituted, for example, of the three gunas P M V; and howsoever variously P M V may mix, that is, condition one another-they together form an indivisible unit of being and working. This "scheme" we may call the "Law" of the "Root", and this is invariable and permanent.

Denial of the co-efficient of possibilities (a) means the denial of change or movement. Defining the terms Ksara

- ¹ Cidākāśa.
- ² Prakrti.
- ³ Visadışa Pariņāma and Sadışa Pariņāma.

and Aksara in the Vedanta as "changing" and "unchanging" respectively, we perceive that these are determined by the values we give to the co-efficient, a. If we put a = 0, we get the "unchanging" element in the universe of experience. This unchanging element may be the Pure Æther above referred to; it may be the general Stress or Power to-be-and-become in Experience; it may be the "Universals" or "Laws" according to which Experience is and becomes; and so on. It is worthy of note that Vedantism is not absolutely committed to the view that the unchanging is = the Pure Æther alone. One type of Vedantism only is so committed. Some types regard the Pure Æther¹ as an hypostatized abstraction, as the western thought, generally, would also regard it. Forms and Relations are not, therefore, necessarily "ephemeral" from the Vedāntist's point of view. According to one point of view, Forms and Relations may belong either to the realm of nature or may transcend them. Those of nature² are of course ever changing; but the ultra-natural Forms and Relations unchangingly abide. Are these not suggestive of the Platonic "Heaven" of Universals again?

These are some of the philosophical consequences of putting a = 0 in our given universe of experience. But instead of putting it = 0 at once, we may gradually make it evanescent. In that case we get a series of values for a, and, consequently, series of universes lying between our normal, pragmatic universe (in which a = 1, as we may take it) and the absolutely unchanging, unmoving Experience which the Pure Æther prima facie is. This gives us a series of change-values. In our normal experience we discriminate between things and relations that are more lasting than others; Science gives us the atoms and their laws as a still more lasting framework; the Æther of Physical Science may be a yet more lasting framework;

¹ Nirviśesa Cinmātra.

² Prākrta, Krttima,

and so on. In this way a quest may be undertaken as to the ultimately fixed framework, as Science and Philosophy in every age and country have done. In the Vedāntic literature, we may especially refer to two instances of a quest after the Ultimate Ground in the *Chāndog ya Upanişad*,¹ and after the Unchanging Ground in the *Brhadāraŋyaka Upanişad*.²

As I have attempted to show elsewhere—no plane or "ground" of Experience (including the Pure Æther or Being-Consciousness), can be logically understood to be unchanging only or changing only; because, to logical thinking change and no-change are two correlatives, conception of the one not being possible without that of the other. Hence, it has been rightly perceived that the truest and the most fundamental conception of *Brahman* is that of the Alogical—the undefinable and unmeasurable; it is one in relation to which such categories as "one and many "" no change and change," "cause and effect", etc., do not comprehensively apply. Every category—even that of unity or of no-change or of infinity—defines and, in a way, measures the indefinable and immeasurable Being.

And this, as we have more than once pointed out, need not mean that categories are *excluded* from the *Brahman*; for, to say so is also to define and "cut up" the All-Whole. Even a relation of denial or exclusion is a kind of partition; what is excluded is set up there as something *else*. Therefore, the All-Whole ceases to be the All-Whole by being "denuded" of Forms and Categories. To say that these latter do not exist in the sense as something else (*e. g.*, the Pure Æther) exists, and that, therefore, their taking away does not take away from the latter kind of existence, is really no successful attempt to preserve the All-Whole entire. The All-Whole must be inclusive of every kind of existence; else, it is not

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¹ I. 8th and 9th Parts.

² III. 6th and Brāhmaņas.

the All-Whole. And in fact, the distinctions—very pertinent ones from the pragmatic standpoint—that we make between this kind of existence and that, do not affect Experience-Being as such or the All-Whole. "Is-ness" is a common denominator of what we judge to be "is" and what we judge to be "is not". The Māyāvāda exclusion of Forms and Categories gives us an Æther of Being-Consciousness that is "pure" and "unchanging," but the All-Whole—the Fact—has been sacrificed by exclusion.

Alogicality of *Brahman* means that It exceeds all defining and measuring forms and categories, but that It does not exclude them.

Yet some defining forms are intuitively seen to approach alogicality more closely than some others. Unity, Continuity, Infinity are categories that are intuitively felt to be more at home with the Whole than the opposite. But this is a large question into which we do not at present propose to enter. Assuming now that the more universal and "extensive" ideas are nearer alogicality than less universal and extended concepts, we may try to give an approximate description of the Brahman in terms of what we conceive to be the most universal and extended concepts, such as Being, Continuity, Infinity, and so on. It is obviously a truer and fuller rendering of the Whole to say that It is than to say that It is a gravitating mass. This again is a comparatively fuller account than this that the Whole is red or green; that It is water or air or the sky. The Whole is commonly always veiled for practical purposes; and the veil is drawn over it now closer, now wider. A set of concepts arise-and in fact have arisen-in philosophy which seek to express the Whole so far as they have been able to take it in: it is not only in early Greek Philosophy but in more "mature" forms of thought, that the Whole has been presented in garbs that clothe this or that "limb" only of the Whole: water, air, fire, sky, Æther, matter, life, spirit,

time, cause, nature, force, idea, will, and so forth are some of the garments flung upon the "limbs" of Immensity and Immeasurability; but since the Immense and Unmeasured has absolutely refused to give sittings to the cutter and measurer, It has gone about actually unclad for ever.

But still some garments are only "rags" whilst others are, relatively speaking, "mantles". As a rule the more "extensive" or universal a concept, and the more emptied of specific content restricting the scope of a concept, the nearer does that concept come to the native alogicality of the Whole. The pendulum of logic oscillates between two limits: and both the limits of its amplitude are alogicalityone is the indefinable and immeasurable Whole (the Continuum as we have called it); the other is ultimate-indivisible and unanalysable particular (ideally = the Point). Between the Continuum and the Point, understanding as a defining and measuring stress, operates. And the nearer understanding approaches these two limits of its amplitude, the more ununderstandable does its theme become. It is not correct to think, therefore, that inasmuch as the Whole exceeds all concepts that define, all concepts are equally irrelevant and inappropriate with respect to the Whole.

We were dealing with the "no-change" concept which we got by putting a (co-efficient of possibilities) = 0. We saw that this concept, too, presents a series of values. According to some types of Vedāntic teaching, the highest value is represented by the Pure Æther = Pure Being-Consciousness in which the universe of experience (aggregate of forms and determinations) "lives, moves and has its being". It is the *Akṣara par excellence*. Forms and determinations may be there or not there; they may change. Even as regards the Types and Universals (the logical Principles to wit), it may be a conceivable hypothesis that for minds constituted radically otherwise (those for example, for which the famous Kantian Synthetic Judgment a priori, 5+7=12, need not be true), the world may not be dominated by those Universals; but it is absolutely inconceivable that the universe of experience is other than Being, and in, and of, Consciousness.

Consciousness as the Pure Æther in which "modes" appear and disappear, one that gives to these modes their substratum of being and imparts to them their fundamental character of being experience, and further, makes each a manifestation of an essentially undetermined impetus, has not been widely recognised in the West (and in India, also, by many types of psychological thought), because consciousness has been uncritically and under the influence of an unconscious pragmatic illusion, identified with this or that mode, this or that determination; so that, it is just the series or sum or stream of these particular "pulses" that is commonly supposed to constitute consciousness.

The claims of Pure Consciousness as the Perfect Æther distinguished from the particular states, modes or determinations, and yet supplying them their foundation of being, manifestation and activity ("Play"), we have discussed at length in another place. We do not think that Pure Consciousness is an hypostatised abstraction. And though some types of Vedāntic interpretation (e.g., that of Rāmānuja) have argued against the Pure, undifferenced "Æther"1 it is scarcely open to doubt that the Upanisads do stand surety for it in many documents (Texts) of unimpeachable "bona fides". We have further maintained elsewhere that the Pure Æther is proved by the "Method of Conceptual Limit" and the "Method of Perceptual or Intuitional Limit "2

¹ Cf. Śrī Bhāsya, under I. i. 1, § 49, 50, etc. § 79, 80, etc.

² See last Section of Approaches to Truth; the position is more simply stated in a later work—Patent Wonder, which, it is hoped, will soon be republished.

The former is, briefly, the method of *thinking away* all determinations from experience with a view to reaching the inalienable and ineffaceable "Primary ground". The latter is the method of *actually* eliminating all determinations with a view to seeing whether the Primary ground of Pure Æther does or does not vanish in the process. This latter method may be either *normal* or *abnormal*. The normal is illustrated, as closely to perfection as may be commonly possible, in (a) deep, dreamless slumber (granting that it is not a case of dreams forgotten); in (b) the experience of just going to fall asleep, and that of just going to wake up (cases studied at some length in our *Approaches to Truth*); and in (c) all moods of "reflective", "onlooking" detachment in which he "Self" intuits itself as a pure Illumination revealing the whole "scene" of experience.

The abnormal or ultra-normal cases may be either subnormal or hyper-normal. To the former category belong the more or less closely approximating pathological cases of "swoon", "vacant mind", generalized, extended, vague, chaotic consciousness, and so forth. To the hyper-normal order belongs trance and *Yoga*, culminating in "pure nonpolar beatific vision."¹

Besides these two we have purely theoretic considerations also showing that the "state" or "mode", the particular form or process, the series, the stream are not the *whole concrete*, *original* datum of experience, but that they are all obtained by the veiling of, and abstraction from the whole, concrete, original datum, which is directly intuited as an undefined universe *in*, and *of*, a Pure Æther of Consciousness.

To direct apprehension experience is always that of a continuum, though for pragmatic reasons, its appreciation may be more or less restricted. The particular state or mode can displace the continuum not in actual apprehension, but only

¹ Nirvikalpa Samādhi.

in pragmatic appreciation. Even when experience seems to be concentrated as nearly as possible into a Point, its actual intuitive spaciousness as such is not reduced, but its area of intuitive manifoldness, and still more, that of logical appreciation is reduced. When Arjuna saw nothing else than the eye of a bird, placed at the top of a tree, which he was required to shoot at, he had an experience of a much more condensed and concentrated kind than those of his brother archers who had preceded him. In his case, both the intuitive and the appreciative areas were apparently reduced to the eye of the bird he was required to hit. Still his actual experience ceased not to be a continuum at that moment: it was a continuum of consciousness in which a small feature only, namely the bird's eye, formed the "focus" of regard, with the "fringe" reduced as near as possible to the condition of bare consciousness. It is as if the infinitely varied panorama of the starry heavens at night were reduced to the perception of a singlestar, or that of a vast expanse of wilderness to the perception of a solitary rock or boulder. The solitary star or rock is perceived as of a wider background of being. In intuitive apprehension and in pragmatic appreciation, the solitary star or rock may "use up" so much of effective attention or consciousness, that the wider background of the sky or of the field may be almost entirely veiled and obscured. Yet the actual experience is surely not that of a star in the sky or that of a rock in a field; there is, undoubtedly a more or less dimly felt intuition of a wider "setting" of being. And though there may be some doubt as to a particular form of being-background (e.g., the sky or the field) being intuited in the cases where a star or a rock or any other particularthing or feature is being "taken in" in a spell of concentrated rapt attention, there is absolutely no doubt as to the continuum of being as such being intuited in such cases, and also,, as to the continuum of consciousness as such being intuited.

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In other words, the background of Being-consciousness as such remains as the inalienable and ineffaceable background of all experiences, whatever area the manifold of apprehension or appreciation may possess. The means that actual experience-whether that of a rich and varied panorama or that of a solitary star or rock-is always the experience, may be practically unappreciated, of a background of Being-Consciousness. Even that of a Point is so. This makes the Point in actuality a Continuum-Point. The manifold of "Name and form", may, in practice, assume any intermediate position between the Infinite Universe or Cosmos¹ and the Point; in other words, it may be any universe of a "Centre." The two limiting or ideal positions may also be reached. But in all these positions-ideal, approximate or intermediate-Experience always involves the Being-Consciousness background or that which we have called the "Primary Ground." 2 The Primary Ground is the fundamental framework, and the fundamental framework is also the one that is least open to non-manifestation: every particular experience is unquestionably Being-Consciousness with a particular determination, on which attention may lavish itself but without succeeding to conceal altogether the background of Being-Consciousness. The "Secondary Grounds" or frameworks, before referred to, viz., the Root Measuring and Limiting Principle with its apparatus of " Universals," the "Causal skeleton," the Perceptual context or setting in which particular perceptions (sensuous or "mental") are had-all these may be, and often are, more or less successfully veiled in the events of ordinary experience; but the Primary Ground itself absolutely refuses to "retire".

¹ Viśvarūpa.

² What Chāndog ya Up., before cited, calls "Ākāśa"=Jyāyān, Parāyanam (I. 9th Part). The Vedānta, accordingly, calls it the Ground of self-evidence and self-manifestation.¹

Measures and Limits (grades, degree, etc.) do not affect the Primary Basis as such. And it ought to follow at once from the premises we have laid down that *sub*-consciousness, *un*-consciousness, *super*-consciousness, are orders, measured out *within* Being-Consciousness itself. And it will be seen that the Primary Basis possesses a further fundamental character—Joy-play.

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CIT AND CONSCIOUSNESS

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Cit. as Consciousness, we have exhibited as a concept which is broad enough to embrace Being-Experience-Whole. It is larger than "focal" consciousness; it is larger than even focal consciousness plus the "fringe", or the outlying zones of semi-consciousness. It is not merely the subjective half of the universe of experience: the world of things or objects is also consciousness. And in making this latter assertion, we do not assert that things or objects are only "ideas": they are existents independent of ideas. The polarity of subjective and objective, thought and thing, is a polarity that does not contra-distinguish consciousness from what is not consciousness, but it is one that distinguishes one mode or attitude of consciousness from another. It comes to this, therefore, that a thing, e.g. a rock, is a mode of consciousness without being subjective, mental-that is, an idea. Possibly the western term "consciousness" is too strongly and decidedly suggestive of subjectivity, mentativeness or ideality to do office for Cit which is identical and co-extensive with Being. A man in the west will assuredly be dubbed as a Berkeleyan idealist, if not a solipsist, who calls a yonder rock a mode of consciousness. But a Vedāntist may call it a mode of Cit, and yet he does not thereby cease to be a realist-even a naive realist, believing both the primary and the secondary

qualities to be in the rock itself, and not in the perceiving mind.

Cit is identical with Being or Sat. The group of "Centres" that we recognise as minds and those that we recognise as matter, are both in, and of, Cit. We have seen how Centres represent positions in the involution-evolution curve (freely determining itself) of the Continuum-Point; and how the Continuum-Point represents a polarized condition of the Perfect or Absolute Continuum—a condition necessary for immanent movement which is Jagat or the World. Now, Cit is nothing short of this Perfect or Absolute Continuum.

This Absolute Continuum, which is also the concept of Brahman in the Upanişads, presents (1) The Pure, unbounded Æther of Consciousness of which we spoke before. We saw also that, intuitively, it is the aspect in which the component of Movement and Change is either zero or infinity. In the former case, there is no change in it; in the latter case, there is a change in it of such dimensions that it is beyond the computation of finite frames of reference. A straight-line, for instance, is a circle with an infinite radius; but to all finite frames of reference it is a straight line and never a circle. All finite Centres have their limits or intervals of cognition and recognition; the eye or the ear, for example, can respond to light vibrations or air vibrations only within certain specified limits; so that, vibrations, either too slow or too rapid, fail to be cognised.

So it may conceivably be the case that the Pure Æther may be a moving Æther whose movements transcend all finite or at any rate, human capacities of apprehension. To such Centres it appears to be placid though, in reality, it may be moving. Such intrinsic, though by us unperceived, moving may be either invariant or variant. Suppose x, y, z be the three components of movement. Then, it is invariant, if

either (a) x=0, y=0, and z=0, or (b) x+y+z=0 (without each component being severally zero). It will be variant if x+y+z= something. But this something to be capable of being apprehended by a given Centre, must be of certain assigned dimensions (as in the cases of light-vibrations and air-vibrations). Hence, not only invariant but variant movement also may be unperceived.

Such a possibility of movement and change may, therefore, pertain to the Pure Æther as apprehended by us. Nevertheless the fact remains that we do intuit it as a placid and quiesent Æther in which our universes of experience exist and change. And further—since it is intuited as the *pure* "light" of manifestation and also as the *pure* basis of being, we cannot conceive any other kind of movement in relation to it than what we may call *pure* movement—that is, continuance or persistence in its own given state of purity.

Pure movement or action may also be taken in another sense to mean absolutely free or spontaneous action—action independent of any extraneous factor. God is Actus Purus in this sense. Now, since the Pure Æther is intuited as the whole substratum of Being-Consciousness, we intuit it also as acting *purely* in the sense here explained. In other words, since there is no other Being in relation to it, it moves or acts freely; and such pure action is a double-faced action—(a)action that makes it persist or continue as such; and (b) action that makes it manifest as a Universe or World (in a comprehensive sense including the Continuum-Point and the Centres of all grades). But these activities are *pure* and they do not annul each other. The Pure Æther in manifesting as the World does not cease to be the Pure Æther.

Under (b), or world-evolving action, we have again to distinguish between two forms: (i) invariant action, and (ii) variant action. By the former the Stress in the Pure Æther becomes the Continuum-Point which, as we have seen, is the necessary condition of there being a universe of Centres at all; this Continuum-Point evolves as a correlated system of Centres, and the free involution and evolution which this movement involves, may be called *variant* action. The Continuum-Point Itself represents the *invariant* phase of the Absolute Action. It must ever be, if the universe of Centres must be.

The Continuum-Point, no doubt, freely determines Itself as the Cosmos; but in order that It may be a *Cosmos* at all, It must involve some determination by Law or *Rtam*. So that the Cosmos exists and works in accordance with a system of Principles or Determinants, without, however, forfeiting in every Centre its intrinsic right of free and spontaneous action (Joy-Play). This cosmic determination is also a phase of invariant action.

(II) The second component aspect of the Absolute Continuum is the Continuum-Point-an idea that we have already enlarged upon. It is the Continuum itself regarded from the standpoint of involution-evolution, and the consequent existence and interplay of a multiplicity of Centres. In other words, if we must conceive a World freely involving Being-efficiency¹ and freely evolving that again-and this is what the history of the World means-we must conceive an infinite field of Being-Power which, without ceasing to be such, becomes also an infinitely condensed "Point" of Being-Power. The "field" must be there in order that the "scene" may be laid in Space, in Time, or in other "co-ordinates" of the Continuum of Being. The "Point" must be there in order that it may multiply itself into a plurality of "actors" in the cosmic scene, each with an unfathomed capacity or possibility of free action and evolution. Not only the Self and the living cell, but even the atom of matter is now recognised to be such "actor"; each acts, no doubt, in accordance with a concerted plan, (and this is the element of Rtam in cosmic history), but each is, essentially,

1 Sattā-Šakti.

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a free Centre that not only redirects the available cosmic energy, but is a "tap" through which exhaustless energy is flowing on into the available stock—thus making conservation of energy merely a rough generalisation of Nature's economy. Now, no Centre could possibly be such an actor of unlimited dynamic capital, if it were not for the "Point" (= absolutely condensed Being-Power) at its core.

Every Centre consumes outside Being-Power, and this is its "food,"1 and it grows. It also offers itself as "food" to other Centres; in so doing, it gives out or dissipates its Being-Power. A working balance is of course practically maintained in nature's economy. But, nevertheless, it is a misconception of the essential being of a Centre to suppose that it consists in merely maintaining an equation between its give and takethat the life of a given Centre is nothing else than a transposition of elements of substance and energy between itself and other Centres. It is in itself a magazine of power of incalculable magnitude: an atom of matter is so; a living cell, single or aggregate, is so; an Ego or Self is so. The practical give and take of any Centre is an infinitely complex affair; of this only a small fraction is recognised and appreciated by a given Centre itself or by other Centres that may take cognizance. It is superficial thinking (though practically useful), therefore, to express the actual wealth of being of a Centre in terms of this little bit of its "current account". In the Bank of Reality the wealth of a grain of sand or a drop of dew is represented by enormous "fixed deposits" of which the common "Stock-Exchange" of our convention has no inkling.

Now, these enormous "fixed deposits" and the fundamentally free "use" to which a Centre puts it or can put it, would not be possible if it were not, in reality, the Point. The Point lying at the core of every Centre makes it a

1 "Annam"; "Somam".

"cave"¹ or "little abode" of *Brahman*: its apparent littleness is merely a cover for the underlying profundity and immensity of Being-Power.

The Continuum-Point is thus (1) at the core of every "finite" Centre as its infinite deposit of substance-energy of which its "effective" or pragmatic being-effciency value represents but a fractional current account in the bank of convention; (2) It supplies, in Its Continuum aspect, the necessary medium for inter-central transaction; (3) the Centres are varying positions in Its involution-evolution circuit; and (4) as Continuum-Point It embraces and controls them all; but (5) since each Centre is really a position of the Continuum-Point Itself, it is essentially what the latter is-a Centre of Being-Consciousness-Joy-Play: it is free. If we introduce the distinction between the phenomenal self and the transcendental self of a Centre (the "self-principle" is in every Centreeven in a hydrogen atom), we may observe that, as the former, it is partly self-determined and party other-determined, but as the latter, it is wholly self-determined or autonomous.

Now, the characters we have exhibited above of the Continuum-Point make it clear that it is the concept of Brahman as the "Lord" or God. The Absolute-Continuum or Whole of which the Continuum-Point is a component aspect is alogical; but this component aspect represents, like Plato's Idea of Good in his hierarchy of Ideas, the supreme Concept-entity in the logical line: It is Being-Consciousness-Joy as acting, as "positing itself" (in Fichtian phraseology).

This acting or self-positing logically presupposes a self to be posited; and that self is the Absolute Ego or "I"²—which is the "mental" version of what we have exhibited as the

¹ "Guhā"; "Dahara veshman"—repeatedly met with in the Ups. See, in particular, Katha and Chāndogya.

² Parāhantā; Aham-Vimarśa.

Point. Since according to our exhibition of the Fact, Experience-Whole = Continuum = Being-Consciousness-Joy, the point is a Point of this last, that is, it is this last positing itself as the Supreme "I".

The place of the emphasis on the two logical poles of "I" and "Other" will make this supreme logical conceptentity appear in different roles,¹ but the fundamental concept of the Continuum-Point is easily recognisable in all these varying forms. The concept, again, is an entity, since its reality is not delegated to it by the conceiving of any Centre, but is fundamentally implied in the existence and activity of a world of Centres itself.

It posits Itself and other. Itself is = Point; the relation of Itself and Other is =a line. It posits Itself as many =aninfinity of lines radiating from a Point.² The finite Centres, as we have defined them, each represents a sphere in one of these lines radiating from the point. These infinite lines of radiation are the streams of the Point's stressing to be the Continuum. It is the Continuum, but its inverse form, as we have previously explained. By radiating in infinite lines of manifestation, the inverse Continuum stresses to be the direct Continuum again. It is like an infinite coil of wire pressed into a point under an infinite pressure, and in that position representing infinite intensity of force, tending to expand itself into the parent condition again. This, however, is a mechanical analogy roughly illustrating the behaviour of the Point. Since the Point has become, and is, every Centre, the latter, in every form, is a radiating Centre: an atom of matter is so (radiation being prominent in the radioactive bodies is basically a universal natural manifestation); the cell of protoplasm is so; and the mind-stuff with its

¹ Cf. the Evolution of the 36 Tattvas in Śaiva-Śākta Āgama in The World As Power and other books on Tantra Philosophy.

² "So'kāmayata. . ." Taittirīya Up., II. 6.

Ego-centre is so. Each is so because the Point which is at the core of its being is a radiating nucleus of infinite range and potency.

As in the planetary systems (atomic or macrocosmic) we have concentric rings of orbits, so (but the analogy must not be literally taken) we have different "planes" for Centres and groups of Centres to move on. These planes are the "stages" or positions, previously discussed, in the involution-evolution circuit.

The matter is like this: The Continuum remains a Continuum in being the Point. That is to say, the Continuum has at the same time (we are, necessarily, speaking temporarily; but the relation is not a purely temporal one) the direct and the inverse forms-plus infinity and the minus infinity poles. Then, the Point, which is infinitely condensed potency, gives out "sparks"¹ of "others" in infinite lines. This represents the tendency of the inverse or minus sign to "unite" with the direct or plus sign: a tendency represented and illustrated in matter, life and mind. An atom of matter is, for instance, constituted by electric charges of different signs keeping apart;² their coalescence would mean the annihilation of that atom of matter as a specific centre of being-efficiency. Difference in sign is represented in the living world by the difference in "sex"; and sex, understood in the sense of mutually attracting or repelling (as the case may be) "lifeatoms"³ must be conceived as fundamental, pertaining to the unicellular beings (protozoa and protophyta), or even to their vital components. The Ego and the Other represent the fundamental difference in sign in the mental world; the two, often, in the comparatively "lower" forms, taking the unsuspected forms of mere "agent and patent" "stimulus

¹ Visphulinga. Cf. Mundaka Up., II. i, 1.

² Idea of Antariksa.

³ Prāna-Anu discussed especially in the Brahma-Sūtram.

and reaction" in what psychology recognises as the "reflex-arc".

Now, the Point never ceases to be itself in giving out an infinity of "sparks" in an infinity of directions. The Continuum and the Point are undirected (or as the mathematician will say, "scalar") Forms. Directions (that is "vectors") appear in the process of the Continuum-Point stressing to give out an infinity of "sparks". This process is the process or history (temporarily understood) of the World. The "spark" means that, practically, that is with respect to its own appreciation and that of similar "sparks," it is a part, a finite segment of the Whole which the Continuum-Point is. In reality, it is the Point itself. The "spark" is a Centre as we have conceived it.

Each Centre exists and moves in a certain plane of the Point's "creative evolution". The planes are infinite in number, and yet, with reference to a standard decided upon, they can be arranged in an ascending or descending series or hierarchy of "positions"¹—with respect to which, again, the advance or retreat, progress or degradation of a given Centre can be determined. However that be, it is to be noted that every Centre—which is a "swelled" Point or Point with a pragmatically and conventionally determined "sphere" of being-efficiency—has *two* components of its motion determining the character of its cosmic orbit.

Those two components are what we have previously explained as the "Positional Determinant"² and the "Intrinsic Determinant"³ of a Centre. It is the ratio of k/a (the first letters of the corresponding Sanskrit terms) which determines the character of the curve of a Centre's cosmic path. It is a variable ratio; so that the curve of any Centre's path can be expressed as a *function* of k: *a*. In the Continuum-Point, *a* is infinitely reduced; since, It has no "other" in relation to

¹ Loka.

² Adrsta.

³ Karma.

which It can be given a position. It is Its own position absolute self-position. The co-efficient of *Karma* is infinitely great here. That is to say, the Lord is an absolutely undetermined and immense Being of "Joy-Play".

In the finite Centres, both k and a have finite values; and both the co-efficients vary. a of a given Centre, C, varies on account of the k of other Centres C', C'', ...; and it varies on account of the k of C itself. And though the so-called matter particles appear, conventionally, to be on the plane of inertia and external determination, the co-efficient of k is really in them, actually determining their behaviour and cosmic path. Their *a*-index seems to be great and their k- index seems to be small only with reference to a certain frame of convention; from which we are not to argue that these indices are in reality as they seem to be in reference to a particular frame of convention.

An atom of matter may be, in reference to the ordinary chemical frame of convention, treated as a "unit" without a domestic economy of intra-atomic substance and energy; it may be treated as though it were subject only to external propellors. But if we exchange this frame of convention for another-e.g. that in which atomic constitution and the phenomena of radio-activity become relevant,-then, we find that not only is the atom not without an internal stuff and energy, but that the internal energy is incalculably great and the motions of the internal substances (electrons) prodigiously great-comparable to those of light; and further that the domestic government of the atom in so far as it is reflected in the phenomena of radio-activity is a kind of autonomous government (Sir E. Rutherford and other authorities conceiving radio-activity as a spontaneous phenomenon, very slightly, if at all, affected by external agencies such as great heat and cold, chemical action, and so forth). We have already previously referred to the Quantum phenomena, "jumping" of

the electron in its orbit, and so forth, which indicate not only that the atom has to some extent an autonomous domestic economy, but also that its "freedom" is of the nature of "Joy-Play".

It is insecure no doubt to build upon what may, after all, be the actual or possible insufficiencies and limitations of deterministic physics. If we imagine away these insufficiencies of the scientific method, may we not imagine a twentieth century Haeckel or Huxley still claiming that the universe is an absolute Realm of Law, giving no quarters to either freaks or fancies, either chance or joy-play; and that, therefore, if the physicist possessed to-day *all* the data he would be able to foresee any future world-event, material or other, even as the astronomer is able, on the strength of his observed data, to calculate precisely the occurrence of an eclipse of the sun or the moon?

That determinism and indeterminism (that is, freedom) play, so to say, "hide and seek" in our appreciation of the world occurrences, is a fact that stands firm and clear. Freedom chased out from one retreat, takes refuge in another; but it has been never laid for good. It has fared as "miracle" has fared. As miracle driven out from "special" realms, has now entrenched itself everywhere—as every occurrence in Nature has now become, in a realistic sense, a miracle,—so has Freedom and Joy-Play. The occurrence of a drop of dew *is* a miracle the moment we transcend the limits of a certain convention defined by a set of concepts and formulæ,—that is the moment we refuse to be shut up within a certain "arbitrary limitation of the data" which the application of scientific method means and requires.

The living cell and the Self have, generally, been recognised as the exploders and directors of energy, if not as creators or importers of energy. It is in any case a free functioner. The minutest species of micro-organism is already

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a centre of very specific and complicated action: how it will act exactly at any moment is unforseeable and incalculable. It absorbs its "food" of being-power no doubt; and it stocks it as its fund of dynamic action. But the energy "let-loose" in its action seems not to be commensurable with the energy absorbed as food. The cell-apparatus may be a "commutator" for changing mechanical force into biotic force; but "mechanical force" in thus being transformed is not simply "taken over "; it appears to be reborn into larger and subtler dimensions. This means that in passing from the mechanical to the biotic form, operative energy becomes "re-inforced" by becoming more directly and intimately connected with the unfathomed mine of energy which the Point at the core of every Centre is. What is called mechanical force is not something different from biotic or mentative force: Being-Power is one. But in the biotic plane a Centre is more directly and intimately connected with the Point at the core of its being than in the mechanical plane. Different Centres or different "envelopes" or "sheaths" of a given Centre may be more or less directly and intimately connected with the "core": a more direct and intimate connexion meaning a greater availability of the "fund" at the core for the practical purposes of the Centre or its envelopes.

Such availability of the fund of dynamism for the different members or parts of a mechanical system of bodies (e.g. a group of galvanic cells) is also an important consideration. In the ordinary elements intra-atomic energy, vast and exhaustless as it seems to be, is hardly available; but it becomes available in what are called radio-active substances such as radium, thorium, etc. Now, our point is that energy being "raised" to the biotic plane makes the dynamic core at the Point available to a degree that was not manifest so long as it was confined to the mechanical plane. It is on account of this that a living Centre exhibits itself as

commanding an energy of higher and larger dimensions (not commensurable with the energy absorbed as "food") than a material Centre, say, a crystal of salt.

The Ego-Centre seems to be a Centre of even greater competency in this sense than a Centre in which the Ego, as such, is yet undeveloped. And from the principles we have before enunciated, all Centres are essentially the Continuum-Point, their difference being only difference of position in the involution-evolution curve; so that the Ego-principle is, in substance, given in every Centre. Nevertheless their varying positions do make certain practical and conventional differences and one of the most important points of difference is the degree and manner in which they can "close their circuit" with the point at the core of their being and thereby render the infinite dynamism there condensed available for their purposes.

With reference to this standard, Centres fall under two broad categories which we may call "in-door" and "outdoor". The former represents a class that turn their "face" to the core and are, accordingly, most "alive" and intrinsically dynamic. The latter represents a class that appear (at any rate with reference to *our* frame of convention) to turn their "face" away from the core, and are, accordingly, "inert" and externally determined. Needless to say, Centres form a series between the two limits of utmost "life and selfactivity" and "inertia and determination". A block of stone *appears* to belong to the latter category.

In this way, a Centre that has developed a Self with envelopes of biotic and mentative stuff-efficiency, is one that is, constitutionally, the best efficient apparatus for making the infinite "Coiled Power"¹ at the core available to the utmost extent. It is an "in-door" Centre of a high order. *Prima*

¹ Kuṇḍalinī Śakti, for an exposition of which see Sir John Woodroffe's Serpent Power, especially the Section—The Theoretical Bases of Kuṇḍalinī Yoga, in which my views have also been stated at some length. facie, it is so. Behaviouristic psychology cannot be satisfactorily written in terms of "in-take" and "out-put" of energy alone in the nervous system. Every stimulus provokes the Self to explode a mine of energy and switch it on so as to describe a reaction-arc, simple and fixed or complicated and variable, as illustrated by William James in his "child and the candle" example which has since become classical. But whether the arc be simple or complicated, fixed or variable, it is evident that Self is an exploder, chooser and "pointsman" all rolled into one. No adequate account can be given of behaviour in terms merely of "mechanical" afferent and efferent currents: somewhere explosion does take place; somewhere choice between alternative routes is made; and somewhere re-active energy is directed. To say that the nerve-centre or neuron does all this instead of the mind, is no real clearing up of the mystery. Whatever does it, it is done.

Mechanistic determinism will score its points if it can show that no choice is really made between alternative routes, and no directing is needed, or is possible. But can it show this? That a route is chosen is prima facie the fact; and the onus lies on the determinist to shew that the fact is a fiction; that the "arc" of reaction simply represents the line of least resistance for the incoming impetus, augmented or checked by the central energy as the case may be, to go out to the muscles. The line or route followed may in fact be the line of least resistance under existing conditions; but not the least important of the existing conditions is the part played by the "Centre" itself which manipulates the afferent current and starts the efferent one. A dead frog may be made to twitch its legs under the influence of a galvanic current; a live frog, too, moves its legs in a manner if at a certain position of its body an irritating acid be applied. But there are striking points of difference between the two cases. The former is a fixed, simple, invariable reaction; the latter is a complicated, variable

response; the live frog may, and often does, go through different response-complex under the same external stimulant; for instance, the irritating acid may make it jump in one case and rub the irritated limb with a leg in another. The actual behaviour of living beings is complex and variable (and therefore not exactly foreseeable) apparently under the same exciting conditions.

Experiments performed with frogs, pigeons, hens, hares, dogs and so forth go to show that these animals, when their brain-substance has been removed, can go through practically the whole round of their actions and reactions, both fixed and variable, with only one marked difference, namely, that these reactions are performed "with increased inertia" or lack of initiative. In other words, the removal of the brain, which is supposed to be the organ and seat of consciousness, does not affect the essential selective and variable character of the responses, though it seems to reduce what we may call the "agility-index" of the nervous apparatus.

The position might be strengthened by evidence from what is now commonly called "Abnormal Psychology". We need not especially go into them now; but the point is that many complicated and variable mental processes are gone through and bodily forms of conduct are performed apparently without the supervising direction of what is pragmatically our consciousness (that is, the cerebral consciousness). And if we decide to define such consciousness as the possibility of varying action under the same assemblage of conditions (e.g. in the same assemblage of conditions A, B, C, either X may be done, or Y or Z), then, it has to be recognised that that possibility is not confined to the cerebral hemispheres, but that it is at least co-extensive with every form of living tissue. Further, if projected or "exteriorized" consciousness (if not "disembodied consciousness" as believed by many neo-spiritualists) really exists, then the possibility above referred to is not merely co-extensive with, but wider than, what we commonly appreciate as living matter; it may be connected with a subtler vehicle.

And since it is becoming increasingly clear that even units of matter can vary their action (e.g. the jumping of the electron in its orbit, and so forth) under a given ensemble of conditions, the possibility above referred to, and therefore, consciousness, cannot be withheld from matter also. Physical science, as we have repeatedly observed, must, in the last. resort, start with an apparatus which is both undefined and unmeasured; and its explanation of the World consists in an increasing attempt to appreciate this fundamental indefinability and immeasurability by an apparatus of definitions and measurements (which are not, however, merely "subjective"). It must follow from this that fundamental alogicality (exceeding all measures and definitions) underlies the apparatus of logical appreciation which science is. We cannot say, therefore, that Being-Power in itself and as a whole is exactly covered by these (or any other) formulæ and equationsthat it is determined by these rules exhaustively, leaving no margin and substratum of indeterminateness.

The substratum of indeterminateness is the possibility of varying action under set conditions, which no scientific calculus can rob from Being-Power in any form. We need not further pursue this question, but it is evident that if consciousness be conceived as the possibility of varying action or indetermination, then, it is bound up with the essence of everything. And this is what follows from the general premises of the Vedāntic doctrine (those relating to the Fact or Experience-Whole, Continuum-Point, Centre etc.) that we have been discussing. Matter, Life and Mind are classes of Centres; so that, whatever fundamentally pertains to Centres, pertains to them. A Centre is in, and of, Being-Consciousness-Joy-Play. But different classes of Centres, and different Centres.

in the same class, are pragmatically unequally situated in respect of the degree and manner in which they are able to "tap" the unfathomed mine of Consciousness-Joy-Power concentrated at their core.

The Being-Power at the core and as distributed in the envelopes is "consciousness" in accordance with the conception we have formed of it—possibility of varying or selective action under a given *ensemble* of conditions. It is the "index" of Consciousness: the term itself being indefinable. "The cross-section of the environment made by the reactions of the nervous apparatus", "the detonation of a nervous impulse meeting an obstacle in its route; a temporary clog or inhibition; and a consequent deflection of the current to a loop or circuitous route";—these and such other "definitions" of consciousness are no definitions of *Cit* in the fundamental sense in which the Vedānta has meant it.

It is also evident that the basic "index" of consciousness (viz.: possibility of varying action or Karma under set conditions) is also the basic index of Joy. Every such action is, therefore, Play. And not only every such action but all action is Play. Many, no doubt, seem to be determined; but this is true only in so far as the undefinable and unmeasurable fundamental nature of the Centres (e.g. material bodies) doing such actions, are subject to the Measuring and Limiting Stress (that is, $M\bar{a}y\bar{a}$). "Being subject to $M\bar{a}y\bar{a}$ " means—arising out of the measuring and limiting action and depending on it. All finite Centres, with their universes of experience pragmatically defined and measured, are thus subject to $M\bar{a}y\bar{a}$, and have their actions determined by the terms of this subjection.

Yet just as the *wholeness* of the Being-Power of any Centre exceeds the bounds of its (or of others) pragmatic appreciation, so the *wholeness* and *reality* of its action exceeds the determinateness of its measured character. As the poet is greater than his poetry, and his poetry greater than any special "construction" that may be put on it, so the Being-Power of a Centre is greater than its action, and the concrete whole of its action is greater than any logical and deterministic account that may be given of it. A deterministic account or explanation of an action is always one that is roughly and approximately true. In its concrete wholeness, it is inexplicable—a "miracle play".

 $M\bar{a}y\bar{a}$ spreads her net far and wide, and its meshes are fine and subtle enough to catch "the smallest fry"; yet she absolutely fails to catch the Whole Fact itself—both in the Absolute Continuum and in the Absolute Point form. And since any Centre is *really* the Continuum-Point in a certain "position" (as before defined), the net does not catch the real whole of a Centre, or the real whole expression or action of a Centre. *This*, therefore, never ceases to be in the nature of Play, whatever structure of determinateness may appear to be laid on it.

Since the Continuum-Point is the very pre-condition of a Measuring and Defining Stress beginning to operate in the unmeasured and undefined Whole, It is not subject to it; it is the "master" of it.¹ The Point like the Continuum is undefined and unmeasured; and it is a logical necessity for any process of measuring and defining to set in. We may think, therefore, that the Continuum-Point wields and spreads the measuring net spoken of above. Its action is *actus purus* pure, absolute Play.²

We have in a previous lecture tried to form an idea as to what the experience of the Supreme Centre (the Continuum-Point) may be like. We considered it in respect of the two components (V and T) of the Measuring and Defining Stress. It was found that It represents a plane of experience which has (a) an unveiled and untreated intuition of the

¹ İśvara=Māyī. Cf. Śvetāśvatara Up., IV. 10.

² Līlā-Kaivalyam.

Whole; (b) an unveiled and untreated intuition of Itself as the Continuum-Point evolving into an infinite series and "configuration" of correlated finite Centres, underlying them all and "controlling" (in the sense previously explained) them all; and (c) an unveiled and untreated experience of veiled and treated being-experiences of the finite Centres, constituting limited "seers and seens", agents and patents, *distributively*.¹

This interesting question of the nature of Lord's Experience we have shortly dealt with in another book to which reference was previously made;² there is but one point to which I wish to call attention in this connexion. Just as individual veilings and treatings (V's and T's) of finite Centres are known by the Experience of the Continuum-Point without rendering the latter itself veiled and treated (in fact, Lord's Experience would be a veiled and partial experience if it did not know the V's and T's in the finite, individual Centres), so Lord's Experience in what is called its feeling or "affective" aspect, is still an experience of infinite, uncompromised Joy-Play, though in it are reflected all finite Centres' individual pleasures and pains. Our smile of joy and tear of sorrow are both reflected on Divine Consciousness. But inasmuch as Divine Experience is not the mere aggregate of the experiences of the finite Centres, it is not the mere aggregate of their pleasures and pains.

Pain or sorrow is a feeling of negation and constraint. It is bound up with measure and limit, particular determination. Its necessary correlate or "pole" is Pleasure. Every measured, limited, particularly determined consciousness has been a pleasure-pole and a pain-pole, and the question as to which pole will be emphasized and prominent in the experience of a given Centre, will depend upon the Centre's "outlook",

¹ Sarvajña and Sarva vit.

² Mahāmāyā, or Power As Consciousness.

"angle of vision" and 'temper' at any moment. The outlook and temper changing, the emphasis may be shifted from the one pole to the other, and an experience felt as painful before, may have its feeling-attitude and feeling-index changed. In every experience of sorrow such possibility of the feeling attitude and index changing is given; and so in every experience of pleasure.

And yet as the unmeasured is ever at the basis of the measured being-experiences, an unmeasured Background of Joy-Play (which is non-polar and therefore neither pleasure nor pain) is implied (that is latent) in all relative experiences of pleasures and pains. In us the Background, without being effaced, lies concealed in feelings—as it does in finite, pragmatic knowings, and in finite pragmatic doings or actions. The Background in knowing is Perfect Consciousness (involving the aspect of Pure Consciousness in the sense of the "Pure Æther" before explained); that in doing or acting is Pure and Perfect Play in the sense before explained; and that in feeling is Pure and Perfect Joy or Bliss.

In the Lord's case this Background is patent, so that the subsumption of individual, finite pleasures and pains do not render the Lord's experience a mere sum of finite pleasures and pains. In and as every finite Centre, the Supreme Being *does* feel its pleasures and pains, its trials and tribulations; but He feels along with it an infinite background of Joy or Bliss which is an actuality to Him, but only a possibility or ideal (something actually given but veiled and unrealized) to the finite Centre.

A finite Centre can essay to realize this possibility of Perfect knowledge, Action and Joy in it by pursuing a method of "culture" that may be broadly described as of a double nature. The reality of its Self is the Continuum-Point which is but the Absolute Being-Experience-Whole regarded from the view-point of creative evolution. A Centre's goal is, therefore, Self-realization. Now, this goal can be sought to be reached either by a method that starts with the Continuum

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or by a method that starts with the Point. A Centre has a Continuum-phase as well as a Point-phase. Both these are practically "measured and limited"; in other words, a Centre does not commonly appreciate itself either as the one or as the other. It may begin *such* appreciation (that is, as the Continuum-Point) with reference either to the Continuumphase or the Point-phase.

In either case, however, the object is attained to the extent that "measure and limit" (that is "bondage"¹) can be done away with. The direction in the one method is different from that in the other in this sense that in the former (Continuum-phase method) "the releasing and liberating" force apparently acts *transcendentally* to the aspirant Centre, and in the latter (Point-phase method) it acts *immanently*: in other words, in the former it appears to act from *outside*; in the latter. from *inside* or within.

In either case, again, the operation may be conductive or inductive-a distinction that has its illustration in the field of Electricity. In conduction between two substances, A and B, the charge which passes from A to B is of the same sign -charge flows on from A to B. In induction A's charge "evokes" or evolves in B a counter-charge, that is, a charge of a different sign. The method of Prayer and Worship of a Divine Intelligence, Power and Love is a method that we may describe as conductive dynamism: Power, Light and Bliss is sought and drawn from an Infinite Reservoir where they co-exist. What Prayer or Worship does is to cut a channel between a finite Centre and the Supreme Centre for a "current" from the latter to flow in; and once communion is effectively established, current must flow in so long as a "difference in potentials" remains-that is, so long as the Centre in question is not assimilated to the Supreme Centre.

¹ Bandha. In this shall be being a structure being being

On the other hand, the method is *inductive dynamism* whenever the object of worship is something in which the Infinite Reservoir is latent rather than patent—in which, that is to say, God is in some sort of an "abode" with His "face" (or "sign") turned away in relation to the conventional frame of reference of a worshipping Centre. Thus the sky, the air, the starry heavens, the sea, the earth, the dawn, time, radiant energy, the universal "food" and so on—each is an abode of *Brahman*, presenting to us a "measure" of its immensity and each may be, and historically has been, in "savage cultures," in many, if not all, by-gone and living religions, objects of "worship" (which is an inappropriate term to express the Vedāntic idea of Upāsanā). The Sanskrit word literally means placing or putting *en rapport*, establish communion.

According to Vedantic Principles, Brahman is and in everything. A thing is not the "created" only as distinguished from the "Creator"; "small" and "lowly" only in relation to what is High and Great. It is only conventionally "small" and "lowly", and so forth. And this means that the Immense Being-Consciousness-Joy-Power is in a Centre with a partly plus but mainly a minus sign-that is, partly evolved and manifest, but mostly involved and unmanifest. The minus sign makes it, conventionally, a "little knower" and a "little doer", or even a dead, unconscious, inert thing. Now, it may be, and in fact has been, the object of worship to change the minus sign into plus-to make the "dead and petrified " Brahman in the sky, earth etc. " living and responsive and congenial". We shortly here indicate the Vedantic basis of Upasana both of the Supreme Intelligence as such and of the "Objective" epiphanies (the shining beings=Devas) of the Divine, such as the Heaven-Father, Earth-Mother, and so forth. This is a most interesting topic which, however, we cannot here pursue further. The conductive and inductive varieties of the Pointemphasis method we shall briefly refer to in the next Chapter.

BRAHMAN AND REALITY

XI

In the last Chapter we were dealing with the two methods of self-realization by a Centre. As the Continuum-phase method may be either positively "signed" or negatively "signed," so may be the Point-phase method. In the former kind of method, it should be recalled, a Centre addresses itself to the *Brahman* in its phase of *extensive* immensity; in the latter it addresses itself to it in its phase of *intensive* immensity—the "limiting position" of which is the point. Either may be of two kinds according as the Continuum or the Point is adopted in its patent form or in any of its latent, "veiled" forms. The sky, the earth, the fire or universal radiant energy, and so forth are the latent, veiled forms of the Continuum of Fact or *Brahman*.

The Upanisads have again and again sought the Brahman in and as the Sky or Æther, the Fire, the Waters, the Life, the Mind, and so on; and the method followed by the aspirant under the guidance of his guru is the method of progressive realization. The Brahma-Sūtras of Bādarāyana which, in a considerable measure, devote themselves to the discussion of these "revealed" texts, have sought to establish that the Æther, Air, Fire, Life, Mind and so forth, which have been the objects of the last quest in the Upanisads in many places, are not limited, measured and defined objects, but are to be understood as visible representations of the measureless immensity of Being-Power; that they are not things-
other than Brahman (or the Whole) which is impossible, but they are the Brahman under certain pragmatic, conventional limitations (that is, measures and definitions). The famous Nārada-Sanatkumāra dialogue in the seventh Book of the Chandogya Upanisad, and many other beautiful and inspiring revealed "stories", illustrate the progressive method of Brahman-realization as pursued from immemorial antiquity not only in India but, to some extent also, in other parts of the world. This is the Continuum-phase method in so far as it pursues the Brahman in its aspect of extensive immensity such as is illustrated in the Space-Æther, Time, Universal Fluidity or Mobility,¹ Universal Radiation,² Cosmic Life or Mind,³ and so forth. The method will be positively "signed" where the Brahman as patent Being-Consciousness-Joy-Continuum is directly sought in worship, devotion or knowledge by a Centre; it will be negatively "signed" when it is sought indirectly in and through such continua-representations of the Brahman as we have in the Space-Æther etc. in which the Whole (as Perfect-Being-Consciousness-Joy-Play) has more or less "hidden" (that is, "negatived", "oppositely signed ") itself.

The Point-phase method, pursued to the last, also leads to the same goal. Because the Point is the Continuum regarded as the possibility of creative evolution. This method is positively "signed" (that is, conductive) where the object is the Absolute Ego or Self directly. The Ego or Self or "I" represents, it should be remembered, the Point in the Centres that have evolved self-consciousness, but the principle of the Ego is in every Centre, even in an atom of hydrogen or oxygen; and the principle of the Ego is the possibility of measuring out or defining a more or less permanent field or sphere with reference to a

¹ Vāyu.

² Tejas, Jyotih, Agni.

³ Prāņa, Hiraņya-garbha.

relatively persistent core or nucleus: and when such a persistent core or nucleus is projected into our pragmatic consciousness, we call it 'I', "Ego" or "Self", and the field or sphere organised and co-ordinated by it and associated with it, its "universe", or in a restricted scope, its "body" or "apparatus".

Now, the Absolute Ego or Self is the core or nucleus that has organised about itself the *whole* universe of Being-Experience or the entire system of correlated Centres, each with its relative, "limited" Ego or Self. If a Centre seeks to hold communion with the Absolute Ego *directly*, the method will be a *conductive* or positively "signed" method. The Absolute Ego is = a "condenser" of infinite capacity; the limited Ego is = a "condenser" of practically finite capacity. There is, therefore, a difference of potential between the two "condensers". If special connexion could be established between the two condensers, a current of the same sign would flow from the former to the latter.

The capacity of a finite Centre is determined by the nature of what we have previously explained as its "envelopes" or "sheaths". A certain envelope or sheath means a given arrangement or scheme for a specific control of the ingoing and outcoming activities of the Centre; it represents, therefore, a certain ratio of these two activities, a certain proportion of admitting and transmitting capacity to resisting and inhibiting capacity. We have "physical", "vital", "mental" and other "sheaths" as spoken of in the Upanisads. Each of these envelopes must be understood in the way above defined. The gross physical body is, for instance, an apparatus that can admit only external influences directly, and it resists others (in the sense of not admitting or responding to them); it is also an apparatus that transmits to the environment only certain inner activities directly and it checks or inhibits others. The vital and other finer envelopes are of higher

"efficiency-index" as compared with the gross physical envelopes. Not only we, but all Centres, have their envelopes as here defined.

Now, the capacity of a given Centre in respect of a certain kind of activity or influence (taking it in or giving it out) will be the measure of its practical "saturation point". A Centre draws in a quantity of power from outside and becomes "saturated" with it; all physical or non-physical objects have thus their limits of saturation. Concrete examples from every field will readily suggest themselves to our minds, but we need not especially mention them. When the limit of saturation has been reached, two things may happen; either the Centre will admit no further influx of power from outside-in which case, though its efficiency has increased, it will remain the same Centre with the same arrangement of envelopes or the same apparatus; or, the influx of power may be of such a kind and such intensity that the envelopes themselves or the apparatus itself will be rearranged or reconstituted-expanded in capacity, bettered in co-ordination etc .- which, practically, will mean the growth, development or evolution of the given Centre. And the process continuing uninterrupted and in the same "sense", the given Centre will ultimately realize the Absolute Ego. This we may call the Point-phase method positively and identically "signed", or conductive.

But instead of the Absolute Ego direct and patent, we might start with any representation of it, say, with an atom of matter or a microscopic cell. The physicist has started with this; and indications are increasingly becoming clear that he is already on the way to the discovery of the "Point" (as we have conceived it) in his corpuscle of matter and life. He has already discovered the exhaustless magazine of Power, so long unsuspected (but familiar in the Upanisads as the Dahara-Brahman or "Little Brahman") in the tiniest grains of matter or

life. But he was not in a position to make all this tremendous latent power practically available to him or any other Centre. The Power in the grain of dust is "seen", but it is still, for us, "coiled up"—the "Serpent Power". This means that the Power in it exists with its "sign" changed in relation to us. If our dynamism (practically operative) be of the positive sign, *its* dynamism (vast as it is) is of the negative sign.

Now, if a method can be devised and pursued whereby its dynamism can be practically increased by the influence of our dynamism, and our dynamism can be increased by the influence of its dynamism (as, for instance, in the Leyden Jar Experiment in Electricity), and if this mutual influencing and "vitalizing" can be made to go on till the two "condensers" have accumulated so much power that the "medium" or gap can no longer keep their "charges" apart, but gives way to "ejects" passing from the one to the other, and thus ultimately leading to their fusion or union;-then, in this case, we have the Point-phase method of the inductive kind illustrated. The physicist, as we have seen, is already on the way to a practical recognition of this method leading to the sort of dynamic transaction and rapproachment between one Centre and another, however apparently "small" either or both of them may be. This method is pregnant with vast potentialities, and has its application in fields other than the physical also.

We must now leave this highly interesting question of the methods of Self-realization. In the last Chapter we began exhibiting the *Brahman* in its four phases or aspects. We have now dealt with them in their essential features. *Brahman* as the unchanging and unmoving Continuum of Being-Consciousness-Bliss is the first phase. This in the sense of Pure Æther of Being, Undifferentiated Consciousness and Bliss, ought to be patent to ordinary intuition also; because, the Pure Æther though transcendentally (that is, free from all particular modes or determinations) is realizable in *Yogik* intuition which represents the "limiting position" of a practical method of mental abstraction, concentration and "dissolution",¹ it is also *immanent* in all our ordinary pragmatic universe of experience—which immanent Pure Being-Consciousness-Bliss has been spoken of in the first Book of the *Chāndogya Upaniṣad* as the Space-Æther "greater than everything" and the "ultimate resort of everything"²; and it has been searched after and recognised as the "Abode or Place of *Brahman*"³ in the well-known dialogue between Gārgi and Yājñavalkya in the Bṛhadāraṇyaka Upaniṣad—a "place" that pervades all being but which is not itself pervaded.

To western introspection, generally, neither the transcendental nor the immanent "Pure Æther" has been patent. A "witness" Self noting, if not constituting, every relation (here and there, before and after and so on), but not itself being one of the terms related, has not been an altogether unrecognised conception in the west; but a pure, placid, formless Æther of Being-Consciousness as a permanent frame-work for all the kaleidoscopic changes of form—the "space-Æther" (elsewhere spoken of as the *Bhuman*), and the "Place of Brahman" above referred to—has, generally, remained unsuspected and unheeded in western psychology and metaphysics.

The reasons for this are not far to seek. Since the days of Bacon at least, the "in-door" intuitive method, as a possible and effective instrument of psychical and philosophical research, has remained more or less discredited, and the claims of the *a-priorists* and rationalists have not been very seriously entertained. The rationalists themselves have also

- ¹ Citta-vrtti-nirodha; Unmanī; manolaya.
- ² Jyāyān and Parāyaṇam.
- ³ Brahmaloka.

trusted their method without a knowledge or suspicion of its great potentialities as evidenced by *Yoga* (the "mystical" and yet practical extension and development of the method of intuition), or even without an adequately correct conception of the nature and scope of the method as now exhibited by some of the exponents of "anti-intellectualism" to-day.

In India, on the other hand, as also in many other lands with a tradition of ancient wisdom, the Supreme Experience has been placed beyond the realm of analytic and discursive thought. It is not one that can be established by argument.¹ It must be actually realized. The real emphasis is, therefore, laid upon experimental realization. The Upanisads unmistakably indicate that it is so. In the eyes of theoretical critics, the Upanisads have presented the appearance of a loose, unorganised body of theosophic and cosmogonic conceptions-more or less intelligent and enlightened guesses at Truth which, as yet, are neither certain nor consistent. Now, this is wholly a misconception of the nature and scope of the Upanisadic method. Two different teachings in the Upanisads commonly refer to different stages in the progressive realization of Truth-they are far or near approaches to Truth. They must no more be set up as inconsistent, irreconcilable than, for example, the Newtonian formula of gravity and the Einsteinian formula, or Kepler's statement of the first Law of Planetary Motion and a subsequent and more accurate restatement of it. A first rough sketch of the ways of nature and a fuller and more detailed sketch are, practically speaking, "stages" in the advance to Truth, and a scientific or philosophical discipline which records these progressive but different stages, must not be thought of as a bundle of inconsistencies or as a mere flash-light show of meteoric brilliant guesses and stray lucid intuitions.

¹ Cf. Katha Up., I. ii. 7, 8, 23; Brahmopanisad, 18. 35; Maitri Up., VII. i. 2; Brhadāranyaka Up., IV. iii. 14; III. iv. 2; Taittirīya Up., II. 9.

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The Upanisads undoubtedly claim that the "Pure Æther" as the placid background of all forms and determination is an actual Experience, immanent and pervasive in our common experiences (though practically ignored and unappreciated); and it can be actually realised transcendentally also—that is, beyond and apart from all forms and determinations. And there is really nothing in argument that can oppose this claim. On the contrary, argument, if not unduly weighted with and dominated by theory, will rather indicate that the "Pure Æther" as an unfailing and unbounded substratum of Being-Consciousness-Bliss (terms not to be restricted to their usual western senses) is a *prima facie* possible concept.

First: experience is always a continuum, and only practically a sensation or idea or a series. Second: the necessity of thinking is not the necessity of being or existing-that is, experience is not bound to be as thought represents it to be, the latter being a logical representation of the alogical. Third: the continuum or universe has a variable and varying content, but the patently invariable fact is that universe is, that it is experience or consciousness, and that it expresses a basic impetus. or urge that cannot be wholly determined and measured. Fourth: that forms and determinations can be conceived away, but Being-Consciousness as such can never. Fifth: that in some actual states (both normal and abnormal) we come very close to the state of general, undifferentiated consciousness. Sixth: psycho-physical parallelism does not absolutely require that consciousness must necessarily be a particular consciousness. Seventh: nor does it absolutely preclude the possibility of consciousness existing and functioning in a particular or in a general state, apart from a physical organism. Eighth: subjectivity and objectivity are "poles" appearing in consciousness, so that consciousness cannot be awarded to the former as its exclusive possession or phenomenon, and,

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therefore, bearing *its* character and complexion, necessarily and intrinsically.

Ninth: mind and matter are also co-operators appearing in consciousness; so that it is not the exclusive property of either, and is not necessarily and intrinsically determined by the relations-properties and accidents-of either. Tenth: the mutual action and re-action of mind and matter requires a co-essential medium for each to exist and stress in, and influence the stressing of the other. Eleventh: different mind-centres in order to interact presuppose not merely their physical envelopes or organs (as is apparently the case), but a common, pervasive medium or "mental continuum" which, ultimately, is the Being-Consciousness-Continuum. Twelfth: the constitution of Being-Experience in the planes of matter, life and mind suggests a continua-series, each higher term of which is more universal and pervasive than a lower term, and this undoubtedly suggests a Perfect and Pure Continuum which cannot be anything else than Being-Consciousness.

Thirteenth: as subjective consciousness is but a measuring out of Consciousness as such, so subconsciousness and unconsciousness are also forms and states of Consciousness itself, but not *relevant* to the conventional universes of particular Centres or Subjects. Fourteenth: the constitution of things suggests the plan of Centres (as positions in the straining and stressing curve of the Continuum-Point), and Centres, as their definition shows, are inconceivable without a universal medium of Being-Power which evolves into a system of correlated Centres and may dissolve them all in itself, and which, therefore, is, in that respect, distinguishable from all Centres as their Primary Basis and Finale.

Fifteenth: psychological analysis of cognitive, affective and conative states suggests a common, "indifference" Basis of the ordinary pragmatic bifurcations of the knower and the known, the pleasurable and the painful, and the agent and the patient. Like the α , β and γ radiations sprouting out of a radio-active substance, a Substance, which is segmentally a mentative substance, sprouts into the triple manifestation of cognition, feeling and volition, each of which is, again, bipolar—knower and known, pleasure and pain, agent and patient. Underlying each bi-polar structure there is neutral, undifferenced cognition, feeling and action, and these three, also, mingle into a common Trunk and Root of Being-Consciousness-Bliss-Power.

Sixteenth: existence in forms other than the mental, such as the "merely" living and material, is also a growth out of the same common Trunk and Root, and involves (and possibly also evolves) Consciousness-Bliss-Power, although its evolution in that line may happen to be irrelevant to the scope of the convention of a given class of Centres such as ourselves. And the fact that all these infinitely varied and diversified forms of existence—mental, "merely" living and material—meet and start from, and have their basis in, a common Trunk and Root, indicates that that common Trunk and Root is of a sufficiently universal, undifferentiated, comprehensive and fundamental character.

Seventeenth: "Matters" and "Forms" are so infinitely diversified, and are often so flagrantly inconsistent, that their common "denominator" or basis can only be conceived to be Being as such, Consciousness in the sense of manifestation as such, and Power to infinitely diversify itself as such. Only Being-Power as such can be conceived to be the common Root and Trunk. Between an yonder rock actually seen and a "castle in the air" fancied; between an emotion in the mind and the perihilion of Mercury; between Gauss's "Curvature" (K), or J. Bolyai's formula which the late Prof. Bonola calls "the key to all Non-Euclidean Trigonometry", and such an apparently contradictory notion

as a square circle; and so forth;—the common factor is being (not in the sense of reality which is a pragmatic definition and appreciation of being); and this being is manifested in and as Consciousness; and, further, this being is Power to move and evolve as a manifold. As Being in this radical sense is independent of reality and unreality, so manifestation in Consciousness is also here independent of latency or patency, and of the apprehension and appreciation by any Centre; and the associate Power is also independent of the reference to any Centre. This means that Being-Manifestation-Power as the common Root or Trunk is the neutral "indifference point" of the poles of reality-unreality, of latency-patency and conscious-unconscious and subjectiveobjective, and of cause-effect and agent-patient.

Eighteenth: all the continua involved in our experience, such as Space and Time, though involving measures, are based on an intuition of what in Indian Philosophy is called vibhutva-a term that we can translate as "unboundedness". Philosophers and mathematicians have raised the question-Is Space finite or infinite; Is Time finite or infinite? And Riemann's distinction between "unboundedness" and "infinite extent "---if clearly grasped---will remove a great deal of the confusion underlying the abstruse controversy. As the distinction has the sanction of Vedantism, we shall do well to quote Riemann's words (as translated by Clifford) in extenso: "In the extension of space construction to the infinitely great we must distinguish between unboundedness and infinite extent; the former belongs to the extent relations; the latter to the measure relations. That space is an unbounded threefold manifoldness is an assumption which is developed by every conception of the outer world; according to which every instant the region of real perception is completed and the possible positions of a sought object are constructed, and which by these applications is for ever confirming itself. The

unboundedness of space possesses in this way a greater empirical certainty than any external experience but its infinite extent (in the sense of measure) by no means follows from this; on the other hand, if we assume independence of bodies from position and therefore ascribe to space constant curvature, it must necessarily be finite provided this curvature has ever so small a positive value."

Professor Bonola, who gives this quotation in connexion with his attempt to introduce the concept of Riemann's space in his Non-Euclidean Geometry, observes: "What Riemann holds as beyond discussion is the unboundedness of space. This property is compatible with the hypothesis that the straight line is infinite (open) as well as with the hypothesis that it is finite (closed)". Now, this experience of the unboundedness of Space, as also of Time,—which possesses greater certainty than any other external experience—is the intuition of *Bhūman* or *Brahman*. And Space is a necessary "form" of external experience and Time of both external and internal experiences; it follows that the experience of unboundedness (however pragmatically veiled it may be) is the common and necessary datum of *all* experience, and a datum that is of higher certainty than any other.

But as Riemann truly observed, Space is not necessarily of infinite measure simply because it is unbounded; on the contrary, there are certain fundamental considerations (connected with the positions of bodies and curvature of space) which will go to prove as a highly probable hypothesis that Space is of finite extent (*i.e.* measure). According to the Vedāntic principles, both Space and Time are evolved by the self-measuring act of the Unmeasured Being-Power: they are specific Contracting Principles evolved by a fundamental Measuring Principle or Māyā. And though this Measuring Principle gives its evolutes "measures", it does not and cannot, suppress the essential unboundedness of Being. The

"measures" too, are due to, and understandable in terms of, a certain system of conventions or fundamental postulates made (e.g. in the above quotation from Riemann, we have two assumptions-1. independence of bodies from position; and 2. the constant curvature of space having ever so small a positive value). The Upanisadic method of reaching the Bhuman through Space and Time and Life, and Radiation, and so forth, is, firstly, the "purification" of the fundamental intuition of "unboundedness", and secondly, the abstraction or elimination of the conventional framework by, and with reference to which, Space, Time etc. assume their "measures". Now as soon as this purification and elimination have been effected, not only the unbounded but the unmeasured and undefined is made manifest out of the pragmatic "veils" of Space, Time and so forth. As purified and abstracted (from measures) in this way, it is the Pure Æther of Being-Consciousness-Bliss (statically considered) which (dynamically considered) is = Pure (i.e. unconditioned) Power to involve and evolve as a cosmos of variedly measured forms.

Nineteenth: as the experience of continua such as Space, Time etc. involves an intuition of unboundedness, so the experience of individual, "finite" things involves an intuition —however practically veiled—of what we may call "Pointness"; in other words, every individual thing, whether self or not-self, is experienced as a "swelled"¹, evolved condition of a Point of Being-Power. The sense of compactness, unity, coherence which characterizes the appreciation of a hill range or a panorama of undulated meadow, isolated rocks and scattered clumps of trees is, for example, an enlarged logical reflex or projection of the intuition of Point.

We, in this connexion, note what another great mathematician, Laplace, said about the Law of Gravitation, in so far as his observations are relevant to the matter under discussion.

¹ Ucchuma.

"He points out that one of its (Law of Gravitation's) most remarkable properties is that, if the dimensions of all the bodies of the universe, their distances from each other, and their velocities were to decrease proportionately, the heavenly bodies would describe curves exactly similar to those which they now describe, so that the universe, reduced step by step to the smallest imaginable space, would always present the same phenomena to its observers. These phenomena, he continues, are independent of the dimensions of the universe, so that the simplicity of the laws of nature only allows the observer to recognise their ratios." Referring to the astronomical conception of Space he adds. . . "thus the notion of space includes a special property, self-evident, without which the properties of parallels cannot be rigorously established. The idea of bounded region e.g., the circle, contains nothing which depends on its absolute magnitude. But if we imagine its radius to diminish, we are brought without fail to the diminution in the same ratio of its circumference and the sides of all inscribed figures. This proportionality appears to me a more natural postulate than that of Euclid, and it is worthy of note that it is discovered afresh in the results of the theory of universal gravitation".1

Any finite or bounded existence can, in this way, be conceived to decrease proportionately in its dimensions, or increase proportionately in its dimensions, and yet, to an observer, it may remain the same existence governed by the same natural economy. Laplace was, of course, too "mechanistic" a philosopher to leave any loophole for "play" or even "design" in his conception of the celestial mechanique; and, on one occasion challenged by Napoleon as to the place of Divinity in his scheme, he is reported to have said that he had felt no need of a Divine Being for his scheme. Nevertheless, the postulate of proportionality on which he lays stress is

¹ Quoted by Bonola, Non-Euclidean Geometry, pp. 53-54.

important as showing that the absolute dimensions of things are irrelevant to their cosmic behaviour. For example, the dimensions of a chemical atom are very small as compared to those of our planetary system, and yet, within an atom the corpuscles may have a planetary scheme of arrangement and motion, and, to a proper observer in one of these corpuscles, the Lilliputian scale in the atomic system will not be suspected as Lilliputian. A bounded system being enlarged proportionately upon a Brobdingnag scale will not be suspected as Brobdingnag either by a proper observer.

The laws of the working of Being-Power, in fundamental cases, thus appear to be independent of 'our' dimensions: there is, for instance, no inherent impossibility in there being a cosmos or universe in an atom. In fact, what is regarded as the Lilliputian scale is so regarded only from a certain conventional frame of reference; and so is the Brobdingnag scale. Apart from reference to such frames, a thing possesses absolute measure and dimension; and this absolute measure and dimension-may mean either whole measure and dimension, or no measure and dimension-either, the Continuum or the Point. In both cases, it exceeds ordinary Space and Time. In other words, a thing as it exists and functions in the absolute plane is a thing that only partially manifests itself in Space and Time, but in its concrete Wholeness is not in Space and Time. The mathematician shows that "in ordinary space there are no surfaces which satisfy in their complete extent all the properties of the Non-Euclidean planes" (e.g., those of Lobatschewsky, Bolyai, Clifford etc.). Nevertheless, there are certain analogies between them (compare, for instance, the idea of a geodesic and that of a straight line). The properties of ordinary space are obtained by making those of the complete space conform to certain limitations. For example, the ordinary Euclidean triangle has its three angles equal to two right angles. But this is true only

as a special case of a "geodesic triangle", but not true in other cases. The sum of the angles of a geodesic triangle on surfaces of zero curvature is equal to two right angles. But not otherwise. In Euclidean plane geometry and spherical geometry we treat of surfaces of zero curvature and surfaces of constant positive curvature; and these are *some* of the possible and conceivable cases.

It follows, therefore, that ordinary space relations are not mental construction only, or conventional in the ordinary acceptation of the term, but they are a section made by classes of Centres from a complete manifold in which subsist hyper space, sub space, normal space, as well as no space relations.

The complete manifold represents the level of the Continuum-Point that we have before explained. We spoke of the dimensions of the Continuum as compared with those of the Point: the latter was conceived by us as of infinitesimal dimensions in respect of extensivity, though of infinite dimensions in respect of intensivity. It should now be perceived that this style of speaking is permissible only from the conventional standpoint of Centres such as we are. In itself, apart from such conventional treatment, the Point is = the Continuum, and the Continuum is = the Point. The Point is the Potency to create or evolve, and though we cannot help conceiving such Potency concentrated into the smallest possible dimensions, and, therefore, distinguished from the Continuum, it does not follow that the Point is, completely considered, the smallest thing. Its smallness or infinitesimality is one manifestation out of many others, as the ordinary Euclidean space relations are only some of the actual relations of the Complete Space. Its infinitesimality is, however, not a thought-construction of ours, but it is a segmental property selected out of a complete Universe by Centres such as we are.

Two corollaries of this are important: (1) If a Centre is able, by any means, to place itself en rapport with the

Continuum-Point, it will find itself "at home" with the complete Universe which is only partially renderable is terms of ordinary space and time, (2) though every Centre is a Centre for free activity or "play", and, therefore, its action is, essentially and completely considered, undetermined, yet Supercentral (divine or human) "foreknowledge" of such actions becomes possible. In the complete Universe actions are done and known in a complete structure which exceeds ordinary spacetime relations, and which, therefore, is only partially renderable in terms of such relations. A seer or a medium may, by placing himself "in touch" with the complete Universe through "intuition", know "future" events not yet determined; but in the complete Universe the events are not completely past, present or future; far or near; here or there. The seer has to render (in so far as such rendering may be possible) or "translate" his space-and-time-exceeding intuition into space-time relations-as for instance, one has got to translate a code message." This is an important question, but we do not propose to linger on it. We have, however, dealt with it a little more fully in another work (Mahāmāyā, written in collaboration with Sir John Woodroffe) to which reference was previously made.

Now, since the Point is = the Continuum, the considerations showing the latter as Pure Being-Consciousness-Bliss which, as Stress or Power, manifests itself as an Absolute and Complete Manifold (Universe), and, with respect to particular Centres in it, as a series of relative and finite manifolds, will also apply to the Point. That is, whether we start from the Continuum or from the Point, we cannot dispense with the Pure Being-Consciousness-Bliss-Stress as above explained.

In the mystical phraseology of the Vedānta a distinction is commonly drawn between the "Great Æther" and the "Little Æther", but the epithets "great" and "little" indicate merely that the "Æther" reached by the Continuum

door and that reached by the Point door are identicalequally unbounded and absolute, but are appreciated as great and little by a class of Centres.

We have dwelt at some length on the nineteenth point because of the unique importance of the issues it involves. In this, we have attempted to reach the Primary Basis of Pure Being-Consciousness-Bliss-Power (all these terms should be sufficiently widely and fundamentally understood, so that their meanings may not exclusively be restricted to their partial and special manifestations and appreciations in the finite Centres) through the Continuum or through the Point, and have found that we arrive at an identical position, which is a Pure as well as Perfect Universe, partially rendered and renderable, in the experience of finite Centres, in terms of space, time etc.¹ Unbiassed intuition on the nature of the Continuum or of the Point-the "large" involving itself into the "small" and the small evolving into the large,2 from our standpoint-will not fail to exhibit the Pure Basis to which the play of cosmic elasticity is incidental. On the one hand, we experience fields of diffusion condensing into contracted regions approximating to points; on the other hand, we experience condensed being-energy in contracted regions radiating and "dissipating". Both these presuppose a given "stage" of operation, and we have an intuition (though pragmatically veiled and unappreciated) of this stage as the "Pure Æther" of Being-Consciousness-Bliss-Power.

Twentieth: in a previous chapter (the sixth) we tried to show the inseparability of "matter" and "form" and argued that they must be traced to a Common Root. Throughout

² Sangkucat Prasarat.

¹ In so far as Time is connected with Number, reference may be made to Richard Dadekind's work on Continuity and the Nature and Meaning of Numbers. *Cf.* also the work of Weirstrass, Kronecker and Cantor, amongst others, in the same field.

the greater part of that argument, matter and form were taken in their ordinary, empirical senses. A special quality such as green having, say, a circular form; a particular existence such as water having, say, a wave motion; a sensation varying proportionately to the stimulus; an idea or imagination having a particular structure; a reasoning having a particular logical form; an external motion being subject to the laws of motion;—these were our illustrations showing that matter and form go together and we found that this association is not broken whether we scale the heights of the great or descend into the depths of the small.

Nevertheless, there is another way of following the "matter line" and the "form line", which ultimately shows. not that they separate from each other, but that they blend into an undifferenced alogical unity. On the one hand, we ask: What is the most universal and essential Matter in all the empirical illustrations we have taken or others that may be taken? What is the Matter of which all these may be regarded as modes, varieties or particulars? This is the question which Spinoza raised and every Philosophy raised, and it should not be imagined that it was merely love of pure abstraction that inspired such questionings. The quest after the most universal Being is no more fantastic and chimerical than the quest after the most universal and fundamental logical, mathematical and natural laws in Science. And if it not be an inherently absurd idea that the most universal logical concepts (terms and propositions) generate by their activity other concepts of lower grades of universality (an idea that has lain at the back of some of the most notable systems of western philosophy such as those of Plato, Hegel and some of the neo-logicians), neither can it be tabooed as an absurd notion that the most universal Being evolves by its own activity (and such evolution, as we have seen, is only partially renderable in terms of space-time) the whole: hierarchy of Being-genera-and-species, down to the merest particulars, if such exist.

Now, the most universal and fundamental entity in the Being line is Being-Consciousness as such which evolves—in the sense above explained—as a cosmos of genera-speciesparticulars. And the most universal and fundamental entity in the Form line is Will-to-be-and-become-a-free-yet-rhythmically-moving-cosmos.¹ It need hardly be said that both "Consciousness" and "Will" are terms that are not used, in this fundamental plane, in their current psychological senses. Plato did not mean by his "Idea" what we mean by it; and Schopenhauer did not mean what we mean by his "Will". These terms are used because in our psychological universe their meanings give us an approximate and partial rendering of the completely and absolutely real meanings better than those of other alternative terms such as Force, Impetus etc.

Our psychological consciousness is but a partial rendering ("section" as we before called it) of the complete, absolute Consciousness (Cit) both in Its pan-cosmic (*i.e.*, perfect) and in its a-cosmic (*i.e.*, pure) aspect. So are our psychological "will", "joy", "action", and so forth. In our universe of psychological appreciation, these are, more or less, divergent streams; but in the complete and absolute plane they meet; and in the pure, a-cosmic phase they form an identity. Thus: Pure Being = Pure Consciousness = Pure Will = Pure Joy = Pure Action. Concretely speaking, a block of stone is, for instance, being = consciousness = will = joy = action. To understand this fundamental identity is to understand the essence of Vedāntic thought.

From our analytic point of view, being-consciousness appears to present the statical phase of the block of stone; the last—action—the dynamical phase; and "will-joy" the "hidden" nexus or motive connecting the statical and ¹ Cf. Brhadāranyaka Up. 1. iv. 7.

dynamical phases of the thing. This hidden nexus is important as showing that at the root of every existence there is *Ananda* and Freedom.

The Upanisads very commonly employ such familiar terms as Iksā, Tapah, Kāma etc. (all special psychical terms) to express fundamental Fact-operations. Brahman is thus said to have "seen" or "ideated," "done penance," "desired or willed " and so forth, to evolve the universe: and those cosmic operations should not be understood as mere ideal projections of processes not in themselves ideal, or as cosmic projections of processes ideal or mental in themselves. Materialistic or agnostic bias on the one hand, and idealistic bias on the other, have regarded the matter one way or the other. But the truth is that cosmic processes are the complete models of which ideal processes are partial renderings. "Penance", "desire", "seeing", and so forth, have, therefore, their non-ideal or extra-mental meanings also. Like the English poet Wordsworth, the Vedantist will recognise "a spirit in the words"; but then, this "spirit" need not, in every respect, be made "in the image" of man.

The idea of projection, incidentally introduced, introduces one of the most hotly debated and imperfectly understood issues in the Vedānta—and for the matter of that, in every—philosophy; reality vs. unreality. The Texts of the Upanişads do not appear to make its solution clear, as they do not appear to make clear many another crucial point in the Vedānta philosophy, such as the nature of Brahman, of $M\bar{a}y\bar{a}$, of $\bar{A}tman$ or Self, of *Isvara* or Lord, of *Jagat* or World. Being a science of practical realization rather than of theoretical, doctrinal formulation, the Upanişads leave, or appear to leave, in an atmosphere of obscurity and indecision, the vital issues that confront and agitate the human mind; and accordingly, they have become the starting point of many a divergent and apparently conflicting line of interpretation. According

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to Gaudapāda-Šankara, for instance, everything excepting the "Pure Æther" before explained -all differences, all forms and determinations are "unreal"; 1 according to Rāmānuja (as he sums up his position in a few well-known verses in his Śrībhāsya²) everything is " real ".

Very much, of course, if not everything, depends on the definition of "real" that may be proposed. But however that be, it cannot be gainsaid that the "revealed Texts" which have been accepted as the final authority by the different schools of interpreters, have left the matter apparently open to question and doubt. The "Purva" and "Uttara" systems have no doubt developed a very ingenious methodology³ for the correct interpretation of the revealed literature; but apparently conflicting interpretations and constructions have continued to be put upon the Texts, all this methodology notwithstanding.

On our part, we have, in these chapters and also elsewhere, attempted to look at the Texts not in their dogmatic ensemble and rigidity, but in their practical perspective and prospective; and we believe we have found a central running Thought round which other thoughts cluster. The idea of Brahman, Māyā, Self and the World, that we have, in general, and mainly modern occidental terms, set forth, represent what, in our judgment, may be called the "Main Axis" of Upanisadic Thought.

Now, with reference to this Axis we maintain that the Vedanta does not teach either the realistic or the idealistic view of reality as these views are currently understood, but that its teaching grasps a more complete and profound set of values. In other words, both ordinary realism and

¹ See "Cit-Sukhi", "Advaita-Siddhi" in particular, re: mithyātva of mithya.

² 104, under Brahma Sūtra, I. i. 1.

³ Nyāyamālā.

idealism are partial renderings of a more complete and fundamental import of Reality which the Axis underlies and bears.

We introduced the suggestive idea of projection. Evidently this idea cannot apply to *Brahman* considered as the Absolute Whole. There is simply nothing *else* into which or upon which *Brahman* should project Itself: there is, therefore, no possibility here of introjection or of projection or of ejection. At any rate, that is how we must understand or appreciate the matter. These operations are understandable with reference to something which is bounded or measured. When any kind of dichotomy, diremption or polarity has appeared at any rate, to our logical appreciation—such operations become conceivables. The Continuum is = the Point = the Unmeasured, as we have seen; yet, since to our analytic thought, they define, and, therefore, "bound", each other as poles, it is possible to conceive the one involving itself into the other and the latter evolving itself into the first.

"Section" is a more logically appreciable idea in regard to the Whole than projection or ejection. The Whole is in a section and yet exceeds it. If the Whole be defined as absolute reality, then the section or part must be regarded as real also, though not in the complete sense. A section is a particular determination—defining and measuring—of complete reality. A given section may thus, for example, determine complete reality in terms of ordinary space and time: it accepts and appreciates *so much* of the completely Real.

Suppose for the sake of simplicity we consider the sections of an ordinary cone (excluding the consideration of developable surfaces). Let the base plane of the cone represent the Continuum, and its apex the Point. Let the vertical line from the apex to the base represent the Axis of Standard Position with respect to which the inclination of a given section made of the cone has to be estimated. A circular section of the cone will have right or normal inclination to

the Axis. Other kinds of sections, such as elliptic, hyperbolic,. parabolic will have what we may call their characteristic "eccentricities". If the whole realm of reality be represented by the cone, then the base and the apex-the Continuum and the Point-comprise between them the entire realm. A circular section will comprise a part of the entire realm, but that part will be a correct or right segmentation of the whole; in other words, such a section will contain a part of reality, but that part without "bending". It is a section, therefore,. in which veiling is still there inasmuch as it is a section and not the Whole; but in it there is no "bending" or special "treating" of reality. The bending co-efficient has been called by us eccentricity, and, after the analogy of the human Centre in which eccentricity is variedly illustrated, we may call its components "like" and "dislike". Every Centre human or sub-human has its characteristic eccentricity represented by its "likes and dislikes"; which ordinarily makes a Centre not a "circular" segment of the complete cone of reality, but an elliptical or hyperbolic or any other kind of segment, showing an eccentricity with respect to the Axis or the Standard previously explained.

The Main Axis or the Standard represents, as explained in one of the Supplementary (Appendix) Lectures, the "Revelation" on which the Vedānta Philosophy is based. The circular "cuts" without eccentricities represent the "received" experience of the Seers; and the more or less eccentric "cuts" are the individual, personal experiences of Centres.

To get a right "section" of Reality, eccentricities must be reduced to nil, and to get the complete Reality itself, the entire "cone" subsumed by the Continuum-Point¹ (Base-Apex)

¹ The idea of the Continuum-Point, more plainly and orthodoxly stated, is the idea of Isvara or Lord in its essence. It is uncritically thought that this has hardly any locus standi in the Vedāntic Scheme of Reality (which is 'veiled' atheism and nihilism). This is total misconception. In the Māyā-vāda form, to which alone the allegation seems to-

must be possessed. The entire cone is, of course, an infinite cone; still, it must be a cone with the polarity of Base-Apex in order that it may be spoken of as Reality. In the unbounded *Brahman* which is larger than even an infinite cone, the question of reality and unreality does not arise. It is the Supreme, Absolute Fact.

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apply, Brahman is both Saguna and Nirguna, and though the latter must be realized as the Pure (*suddha*), Adhisthāna ("Basis"), the former is not our adhyāsa ('ascription' or 'construct'). It is the Absolute Brahman 'positing' Itself as the Wielder of Māyā (*Māyādhīsa*) for world manifestation; or as we have said, the Absolute Alogical defining Itself as Perfect Reason and "Person".

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REALITY AND VALUE

WE introduced the question of reality towards the end of the last Chapter, and developed a suggestion, analogy of the sections of a cone, as to how reality may be conceived from four standpoints. In the first place, reality may be conceived either alogically or logically. Alogically, reality ceases to be the antithesis of unreality, but becomes co-extensive with all Being; it becomes the same as Brahman or Fact. And this Fact, with capital F, is, as we have seen, all-inclusive: fact, theory, fiction, and even nothing, and what is worse than nothing-self-contradictory ideas, such as the square triangle, are in the Fact; and, with respect to this, they possess a Being which is impartial and homogeneous. This plane of alogical Fact-ness is indicated clearly by such remarkable identities as "All this, verily, is Brahman", "Brahman is above, is below . . .", "All this is real", and so on, that are commonly met with in the Chandogya, Brhadaranyaka and other Upanisads. A square triangle is, just as a patch of dusky cloud there, is; and the distinction we make between the former existing in fancy or speech only and the latter existing in actual perception, is one that is indeed practically most important and useful to us, but it does not affect the being as such (that is, with reference to conceptual, perceptual or any other pragmatic plane) of either.

Logical reality exists where the polarity or antithesis of real and unreal exists in appreciation. This, therefore, must

be distinguished from the Fact. In any logically coherent universe, for example, a square triangle cannot really exist. Such a universe must have a character defined by certain fundamental concepts of logic of which the Laws of Identity (A is A), Contradiction and Excluded Middle are some of the fundamental ones. Certain other Laws of a purely Mathematical character (e.g., 5+7=12), also certain other "mixed" generalisations e.g., the Laws of Motion, (whether or not of the Newtonian brand) must, as we conceive, also "govern" this universe.

This is expressed in the Vedāntic literature by the familiar couple "Ordered Real".1 In the well-known cosmogenic hymn (X. 190) in the Rgveda it is stated that the "Ordered Real" or "Law-abiding Real" was first produced out of the "penance" of the Primordial Being-Power. This "penance", as the Mundaka and other Upanisads explain, is cognitive or rather recognitive act: it is the same as "ideation" (in Plato's sense rather than in the sense of common psychology). This, in plain terms, means that the Alogical and Unmeasured and Undefined becomes logical, measured and defined by this act of recognitive appreciation. As the foregoing chapters have shown, this operation is repeated every moment in the experience of every " conscious " Centre: the alogical universe of intuition becomes thereby a universe of logical appreciation and discourse. This is the birth of the "Ordered Real" in us. How the logical offspring is, in fact, affiliated to the Alogical Parent-is a point that we have already previously discussed.

Now, this logical reality—which is a structure imbedded in an alogical mass, which makes the latter *exceed* the former by "the measure of ten fingers"—may be either perfectly appreciated or imperfectly appreciated. To an Arch-Intelligence the entire "cone" of complete logical reality will

¹ Rtanca Satyanca.

surrender itself without breaking or bending. To imperfect intelligences (in which we now include the individual's sensoria, mind and reason), the cone will either "break" (*i.e.*, become segmented) without "bending", or, as is usually the case, will both break and bend.

Since we are imperfect intelligences (the word "Centres" that we persistently employed is better), our acceptance of the "cone" is both segmentary and eccentric. Every Centre cuts a particular curve out of the cone; and the main determining factor of the equation of that curve is what we have previously called the *Karma* of that Centre. By *Karma* we do not mean simply what is meant by volition or even by action. It is the essentially undetermined (free) impetus or urge of *Brahman* stressing *in and as* a given Centre. It is essentially and fundamentally Play out of Joy (*Lilā* out of *Ananda*).

At any moment a given Centre has a given position in the Cosmic configuration. This position may be regarded as the "Origin" with reference to which the curve described, "cut" or otherwise determined by that Centre has to be appreciated. From this "Origin" start any number of " co-ordinates", of which we may broadly distinguish three: (1) the given configuration of all other Centres in an order of co-existence; (2) the "geodesics" of motion of all other Centres making an order of cosmic movement; and (3) the "geodesic" of Karma, as previously defined, of the given Centre itself. The first is called in Indian Philosophy Dik-Sakti; the second, Kāla-Šakti; and the third Karma. It is evident that the curve described by the given Centre is determined with respect to these three co-ordinates and what we have called the "Origin". Of these four, the three other than Karma may be called Adrsta (in an extended sense of the word).

The above is a complete statement of the case. Practically, however, a Centre's geodesic is determined by its own

karma and those of others which are in its "dynamic neighbourhood". For example, if we interpose a card between a magnet and some iron filings, the card will not be drawn to the magnet, but the iron filings will be, although these latter will fail to reach their objective on account of the intervention of the card. Here the iron filings and not the card are in dynamic neighbourhood with respect to the magnet. In this way, a sun spot may be in dynamic neighbourhood with respect to a magnetic storm on earth. Or to take a more homely example, two friends or lovers living "poles asunder" from each other are, nevertheless, living in dynamic neighbourhood to each other.

Now, the position ("Origin ") of a given Centre includes its apparatus of experience—feeling, acting and knowing. And since this position is determined by the sum of previous *Karma*, we may say that the curve described by a Centre is determined by its own *Karma* and those of other Centres, and practically, of those Centres that are in dynamic neighbourhood in relation to it. It follows, therefore, that a Centre not merely feels and acts, but knows and appreciates, in accordance (mainly) with its *Karma*.

It is this that "breaks" and "bends" the cone of reality for it. So that *its* reality is, commonly, not merely a partial, but a more or less eccentric rendering of Complete Reality. By "eccentric" we mean "deviation from the right orientation"; and by "right" we mean "in the same sense as in the Complete Reality as possessed by the Perfect Centre".

The term "sense" will require a bit of explanation. Suppose we consider the different ways in which a circle may be looked at by us. In the first place, we look and see it as it is. This we may call the *right* sense of taking it. In the second place, the radius of the circle is decreased, or enlarged in the process of our inspecting it, so that we do not see the given circle as it is, but a smaller or a larger circle. Here the sense may be called *symmetrical* and *proportional*—since, in this second case, the dimensions of the given circle have increased or decreased proportionately. In the third place, as we look we see but a segment, say, an arc only, of the given circle; and the arc may be seen as it actually is in the circle, or proportionately increased or decreased. Here the sense is still symmetrical, but *partial* or *segmentary*. In the fourth place, the given circle may be seen by us not as a circle as it is,—larger or smaller—, not even as an arc of a circle, but, say, as an ellipse or any other curve having an eccentricity. Here the sense is *asymmetrical*. All these four cases refer to the given circle in its given plane.

Besides these, we may also consider the projections of the circle on other planes, or consider it in the complete space of which the ordinary Euclidean space is a particular determination. To take the classical example of Parallels: the Euclidean parallels possess the three properties—(a) they are coplanar; (b) they have no common points; and (c) they are equidistant. Now, the elimination of the third condition will make parallels a wider concept—a concept especially studied by Gauss, Lobatschewsky and Bolyai. And the elimination of the first condition—coplanarity—will make it an extended concept in another way, especially studied by W. K. Clifford.

We may subsume all these cases under three categories: (1) A thing is studied in its own position; (2) it is studied in its projection in other positions; and (3) it is studied as an illustration of a more general, extended case, or as a general case itself of which others are particular illustrations. We may call these three Positional, Projectional and Evolutional standpoints respectively.

These different standpoints together with their subsumed cases—of which four have been indicated by us under the

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first category—represent the different "senses" in which Truth—which is the value of the apprehension and appreciation of Reality—can be realized by a given Centre. And we may observe that the three views of Truth that Philosophy has generally taken, viz., Truth is the relation of Identity between Experience and Reality; that it is correspondence between them; and that it is coherence or freedom from contradiction;—these three are correlatable respectively to the Positional, Projectional and Evolutional standpoints that we have just briefly explained.

My knowledge of a circle is true if it is as the circle is in its position. My knowledge of A projected on B (e.g., its influence, image or effect on B) is true, if the projection of A on B (say, A') corresponds to A, and if my knowledge of A' is as A' is. And, finally, my knowledge of A is true, if A can be deduced coherently from a "higher" concept, P, known or believed to be true, or deductively leads to a "lower" concept, Q, known or believed to be true.

This is a rough statement of the cases, into a fuller discussion of which we cannot here enter. It is worthy of note, however, that, firstly, the cases are not, strictly speaking, isolable from one another. And, secondly, that whatever may be said about the abstract rules, in their practical application we have to go by a certain standard, tacitly and pragmatically accepted, of inter-central convention. For instance, my experience of A never absolutely is as A is, and yet, we have learnt to practically ignore certain kinds and degrees of discrepancy, and regard two things or events as the same where their resemblances are, practically, of the required kind. Thus my perception of a tree there and your perception are regarded as the same, though in fact, they are *not* the same.

In the same way, correspondence to be the indicator of truth is defined with reference to a variable frame of practical convention. Logical coherence is an absolute indicator no doubt, but it indicates only within the stretch of its tether: even if we waive the claim of actual facts to challenge the conclusions of ratiocinative processes, we have to remember that such processes start with an apparatus of fundamental premises or postulates which we are forbidden to challenge on the penalty of losing our logical universe itself.

It appears, therefore, that the practical valuation of Truth presupposes a conventional frame of reference. And since this frame is a variable one, the need is felt of a standard frame of reference which shall (1) reduce to nil the eccentricities of individual and group frames of reference, and (2) present the real, whole and entire. This, of course, is the Standard or Ideal, and this is the true meaning of Veda (from Vid = to know). But this goal is, under ordinary circumstances, only reached by stages, so that we have a series of logical values attaching to progressively ampler and higher efforts to reach the Complete Real. The Positional, Projectional and Evolutional types with their varieties are the relevant forms that we meet on the way.

This account of Truth is given in terms of the common "representative" view of knowledge. But that view, though analytically useful, is a superstition. In the Vedānta, Truth is not a representation of Reality, but *is* Reality, inasmuch as Experience *is* Being. The mistake of Idealism is that it first separates Experience or Consciousness from Things, then attempts to reduce these in terms of their representations (ideas) in the mind—to show that things are only the "cluster" or "complex" of these representations. But this is a surreptitious begging of the whole question. Experience or Consciousness should be so defined or exhibited that it may embrace things as well as representations of things as ideas in the mind. The perception of a tree, for example, should not be conceived as the mental representation of an actual

tree which is really not in perception. The perception is the real tree with only this difference that perceiving apparatus has made a partial, and commonly, a more or less eccentric section of the complete reality of the tree. It is one thing to take a quadrant of a circle, and another thing to have an image, reflex or any other kind of representation of the circle:

The Vedanta view of perception makes it clear that perceived things are not mere reflexes or representations of, we know not what, realities existing outside the mind, but they are the real things themselves. Upon the stimulus acting on the perceiving apparatus, the mind re-acts and actually goes out (along the line of least resistance) to where the exciting thing is, and becomes identified with it, subject of course to its reactive capacity; and this identification of mind and the thing is perception. In perception, therefore, the mind is the thing, subject to the conditions of its apparatus. In reflection and analytic thought, however, the mind may, and often does, distinguish its own "states" from things and events which are external. They are external, no doubt, with reference to the practical apparatus of a perceiving Centre; but in perception that apparatus makes a partial but actual section of that external universe of reals. This partial but actual section of the real (to which, therefore, the mind becomes identified to that extent) in experience is called in Vedanta Vrtti: which is not a "subjective" state as such, nor an "objective" phenomenon as such, but the neutral identity of the two, Jnana and Visaya, as the two poles, when differentiated, are called. In a famous passage, the Brhadāranyaka Upanisad calls this neutral identity intuited in perception Brahman.1

There has been a great deal of discussion in the Vedāntic Schools as to the character of what is called *false* knowledge *Apramā Bhrama* or *Mithyā-jñāna*. Admittedly our knowledge ¹ III, iv. 1, 2; III, v. 1; and elsewhere.

is false in illusions, hallucinations, dreams, and so forth. Using the classical term "Khyāti" for the presentation (and not representation which Indian realism has debarred) of Reality, we may consider its different cases as we have considered the different cases of making sections of the cone or inspecting a given circle. Indian Philosophy in treating of nonpresentation of reality has distinguished six different forms, and these forms are important as being the indices of different Schools of Thought. It is possible to reduce them to two: Akhyāti and Anythā-khyāti; and these correspond respectively to Partial (incomplete) and Eccentric segment previously discussed by us. In the latter, the sense of the real is altered by the experiencing apparatus. In every ordinary case of experience, the apparatus is making a segment of the Real partially and eccentrically; and if this circumstance is understood as making all our ordinary experience false, then it is false, and even an out-and-out realist need not say, No. There are Vedantic Texts which speak, in no uncertain accents, of the falsity of our pragmatic experience; but their meaning ought not to be misunderstood. Our pragmatic experience is false only in the sense in which, say, my lay perception of a leaf of a tree is false compared with the expert perception of the same leaf by the botanist under his magnifying glass. Certain things in that leaf have been "held back" from me, and probably also, certain things have been "taken in" by me in more or less altered 'senses.' Science is for "enlarging" the scope of lay experiences as well as for "correcting" the errors due to the eccentricities operative in them. The Veda is conceived as the Ideal or Standard of Experience thus progressively enlarged and corrected. All the same, the lay experience is an actual section or presentation of the real universe: it is not, a representation or reflex of, we know not what, scheme of beings (" things-in-themselves ").

It is true that the Maya-vada School in Vedanta has laid stress on the falsity of common, pragmatic experience, and though the ordinary opinion recognises *three* orders of reality (*viz.*, the absolute, the pragmatic or conventional, and the seeming),¹ there is another which recognises but *two*, *viz.*, the first and the third, holding that there is no difference in kind between the conventional reality of a rope "truly" perceived and the illusory perception which makes it seem a snake. But all this, if the definitions are rightly grasped, does not make the world an "illusion" or "dream" in the sense such terms are commonly understood.

If by "real" or "true" in the absolute sense we mean pure and perfect Experience-Being ("pure" indicates that there are no eccentricities, and "perfect" indicates that there is no veiling or keeping back), then, two things are clear: first that no finite pragmatic experience is real in the absolute sense; and, secondly, that the distinction between the "real" perception of the rope and the illusory perception of the "rope-snake" is merely a difference in degree,—convention fixing up veilings and variations within certain limits as being generally true, and veilings and variations outside those limits as being false.

 $M\bar{a}y\bar{a}$ -vāda cuts its epistemological coat according to its ontological cloth. Its ontology is the "Pure Æther" of Being-Consciousness-Bliss to which we have repeatedly referred. It wants to absolutely seize upon this. Its definition of the Real is, therefore, "what changelessly abides for all time", and "what is the common element of all forms of existence". We have elsewhere subjected these definitions to a logical scrutiny; and here we simply observe that its theory of Avidyā ("Ignorance") involved in the act of perception, and especially of illusory perception, is fashioned in accordance with the needs of its fundamental conception of Reality.

¹ Pāramārthika (or Tāttvika), Vyāvahārika, Prātibhāsika.

This, therefore, is mainly a matter of emphasis and definition; if, for instance, emphasis is to be laid on A rather than on B, P would be the definition suitable for a certain thing or process X; but if emphasis were to be laid on B instead, Q, and not P, would be the suitable definition for X.

What is called the "inscrutable transformation of Avidyā"¹ is an epistemological view that has been so fashioned as to lay stress on the veiling and varying (*i.e.* altering the sense) character of the Measuring Principle which evolves all Centres and works their varied apparatus of experience. But if it not be required not to seize absolutely upon the "Pure Æther" aspect of *Brahman*, we may so frame our logical apparatus of concepts and definitions that veilings and varyings by individual Centres will be recognised in the conception of experience and reality, and yet, no exclusive stress shall be laid on them.

The Vedanta of the Upanisads, as distinguished from the Māyā-vāda interpretation of it (which, as we have seen, is intent upon emphasizing one aspect, and a fundamental aspect, of Brahman, and defines Reality and Knowledge accordingly), is the view of the Alogical (undefined and unmeasured) Fact to which, as such, the polarity of real and unreal does not apply; which, logically appreciated, is the Perfect Universe of the Continuum-Point or Isvara; of which the "Pure Æther" of Being-Consciousness-Bliss-Power is certainly the substratum; in which a Measuring Stress is operative constituting a manifold of Centres, which represent, as before explained, so many "positions" in an infinite curve of involution-evolution "play" (connoting freedom on the whole and in detail); which Centres have their varied apparatus (developed by Karma) for the cognition and appreciation of, and action and reaction on, this scene of cosmic play; and which Centres, inasmuch as they are practically

¹ Anirvacanīya Khyāti.

finite and eccentric, have an experience and appreciation of reals that have a mixed and restricted, as distinguished from pure and perfect, character.

If this cardinal thought (before now called the "Main Axis" running through, co-ordinating and supporting the Vedāntic Thought) is not sufficiently realistic, we do not know what realism means. Some of the other Schools of Vedāntic interpretation have themselves laid sufficient stress on this *pan-realism* of Vedānta by bringing to the fore and discussing the "revealed Texts" indicating this, and joining issue, where necessary, with the Māyā-vādin in his *panillusoriness* or a-cosmism. But even this latter is a matter, as we have pointed out, of emphasis and definition.

We shall not further pursue this supremely interesting subject of the reality of Experience and of the Self and the World in this last Chapter. The Axial Vedāntic position as distinguished from the special rendering by this School or that—is this: That All is *Brahman*, and All is Real; and it is only in the practical appreciation of this Centre or that, that some things or events *seem* to be unreal; so that what is seeming and "illusory" is this appreciation of the *unreal*. The *Sākta Tantra* (which represent a type of Vedānta, amongst some other types) particularly emphasize this, and what is more important, develop a system of practical discipline based upon the recognition of this, and designed and directed to its realization by the dispelling of the *avidyā* that some things are *not* real.

It should not be loosely supposed that *this* Vedāntic teaching, like the other extreme view represented by panillusoriness, undermines the vital distinction between the real and the unreal; that whilst the latter erased the first word, this one erases the second. It no more obliterates the useful and practical distinction between the two, than, for instance, Science by adopting Clerk Maxwell's Electro-magnetic Theory
of Light or, lately, that of the Electronic constitution of the Atoms, has obliterated the practical distinction between a candle and a horse-shoe magnet or that between a cylinder of oxygen gas and another of nitrogen.

When "All is real" is realized, the term "real" loses its ordinary, pragmatic meaning, but becomes so enlarged in meaning that it means either an element of the Fact-Whole (=Brahman), or a member of a cosmic logico-causal system. Such enlargement of meaning is familiar even in ordinary science. A dream, illusion or an hallucination is "unreal" from the lay standpoint, but to a psychologist it is as real a phenomenon as any other, having its conditions and consequences as good and genuine as those of any other. An unreal experience is thus a real event.

Nor is the distinction between Good and Evil, Beautiful and Ugly undermined or weakened, because the Complete Summing up of Being-Power which the Fact or Brahman is, exceeds (but includes) such characterizations. We cannot say, for instance, that Brahman as such is Good or Evil, Beautiful or Ugly, True or False. All these polarities are, however in Brahman. One of the remarkable "absurdities" in the Upanișads, Tantras and Purāņas is that Brahman, or for the matter of that, any "god" or "goddess" in his or her character as Brahman (we have seen that even a dust particle has its Brahman character, which is its real and essential character, pragmatically veiled and unappreciated), is almost everywhere described in flagrantly contradictory and opposite terms: movement, rest; smallness, greatness; unity, plurality; goodness, badness; joy, sorrow; freedom, bondage; beauty, ugliness; tranquillity, fierceness; and so forth;-in fact, all possible antitheses are applied with a view to indicating that the god or goddess, though practically appreciated as a defined Being, is really the unbounded, unmeasured Ocean of Being-Power in which all polarities and contradictories

meet, and out of which they all evolve. To limit a "god" to one set of categories only is to rob him of his title to being *Brahman*, the Absolute Whole Fact.

But a "god", and for the matter of that, God Himselfthe Lord, Creator and Sustainer of the world-must be also, and in fact has been, conceived as Defined (i.e., Logical) Being. It is not that we so conceive it: Brahman is the Universe of Continuum-Point with the manifold of "subordinate" Centres by defining Itself; and the Universe and everything would be inconceivable-Centres etc. could not be-if the Undefined Whole were not thus to define Itself. We as well as our perceptual-conceptual machinery subsist by reason of this fundamental defining operation. Now, Continuum-Point is the highest Being-Concept in the "logical line". And this Supreme Logical "Idea" (in Plato's sense) must be conceived as Perfectly True, Good and Beautiful; because the antithetic concepts of false, evil and ugly are in the nature of practical "obstruction" and negation, so that a Being-Power Who is conceived as Full and Perfect has no "reason" to be false, evil or ugly. It is a defined Power but not divided Power: It is the Whole Itself becoming perfectly Logical.

But since the Alogical does not cease to be Itself in becoming the Logical, every logical Being-Concept starting from the Continuum-Point retains Its Alogical setting or background; and the Texts want to emphasize this by painting the supreme Being as perfectly True, Good and Beautiful, and also as Undefined, Unmeasured Ocean of Being-Power into which all polarities and contradictories pour themselves.

Since, as we have seen, there are ample grounds for thinking that the substratum of Being-Power which manifests itself as the universe is Joy-Consciousness (conceived as before indicated), a pessimistic and mechanistic delineation of the cosmos is absolutely uncalled for. This substratum is the *positive* and ineffaceable element of all forms of beingexperience, even of those that are felt, pragmatically as joyless, graceless and helpless. In fact, these latter feelings are feelings of limitation, impediment, obstruction to the positive, given, ineffaceable element of Joy-Play-Consciousness. Hence the Root of the world-manifestation cannot be conceived as being laid in joylessness, unconsciousness and mechanical necessity.

The fundamental teaching of Vedānta, instead of undermining the foundations of ethics, æsthetics and religion, lays the foundations deeply and unshakably. And it must be remembered that the Vedānta is avowedly and actually more a science of practical realization of the Highest Reality than a speculative philosophy. Its practical, developmental and mystical character is its essence, and not an accident that can be separated. And this practical character presupposes "competency" and "discipline" in the aspirant.

Not only those Schools of Vedāntic Culture that have laid stress on the Method of Devotion-Love-Service, on that of Yoga (in its various—commonly classified into four—forms), and on the Method of Mixed Karma and Knowledge, but even the Māyā-vāda School, which in its more prominent type, has stressed the position that the supreme Knowledge of Brahman is attainable by "hearing"¹ the "Great Propositions"² (inculcating the identity of Self, World and Brahman), distinctly lays it down as a precondition that the aspirant must be morally "pure"—sinless, passionless and stainless, and that he must receive the "Word" from one who has, like Sanatkumāra in the Seventh Book of the Chāndogya Upanişad, actually "seen" the Supreme Self. Otherwise, no competency for the fruitful hearing of the Word is.

1 Śravana.

² Mahā-vākya: generally, counted to be four—"Ayamātmā: Brahma"; etc.

established. Some professors of Māyā-vāda are not content even with this. They hold—as the Brhadāranyaka Upanişad in a famous Text lays down ¹—that after "hearing", not only "thinking" but yogic meditation is necessary for the attainment of the "beatific vision"—which "resolves all doubts, severs all the chains of the heart and the spirit, and reduces to the vanishing point the compulsory dominance of actions". It is clear, therefore, according to the consensus of Vedāntic thought, that the different Methods of Culture grow out of, and rest on, a common trunk which requires an absolutely pure and meritorious ethical life.

And the basic conception of the Self and the Worldtheir nature and destiny-in the Vedanta requires that this life must have its keynote in virility and heroic endeavour. It is a misconception of the Vedantic attitude-and even of the Māyā-vāda attitude-to say that weakness, inertness, zestlessness or dreaminess have any real place in the economy of Vedantic culture. Even he who would realize-" I am Brahman"; "The world is my dream"; and so forth-must be "a hero of heroes". True renunciation such as has been preached by all great philosophies and religions of the world -for example, by Gautama Buddha, the Bhagavad Gitā and Jesus Christ-is not a cult of cowardly escape from the world and the struggles of life. What Lord Śri Krsna most strongly impresses on the mind of His friend-disciple Arjuna is that he must not lapse into "impotency" or passivity, that he must rise superior to all weakness and miserliness of the heart: that he must be a hero and conquer "desire", which is hardest to conquer. The Gītā is universally adopted in India as an authoritative statement of the Vedanta doctrine and Vedantic culture; and different Schools have their own commentaries on the Gītā. Whatever construction may be put on the philosophical text of the Gita, there is absolutely

¹ II. iv. 5.

REALITY AND VALUE

no doubt that we possess the best and noblest presentation of the ethics of Vedānta in the Gītā, which is looked upon as the "cream of the Upanişads". It is also notable that western scholars and missionaries have not unoften sought to affiliate the teachings of the Gītā to those of the Bible. It is immaterial which is anterior to which, or which has borrowed from which; what *is* material is this that there has existed, from time immemorial, an ancient quarry of human Vedāntic Culture, which not only Hinduism and Christianity, but other ancient cultures and religions—in China, Egypt and Babylonia, for instance—have drawn upon. If the Sermon on the Mount can be affiliated to the teachings of the Gītā, it only shows that they both have a common, ancient parentage to which Confucianism, Stoicism, Sūfism, and so forth, can also be traced.

Love, Charity and true Renunciation (that is renunciation of desire) are the key-note of the Sermon on the Mount, and they are also the key-note of the Ethics of Vedanta. " Maintain perfect non-violence to all beings, be friendly and kind to all "1-this is, as the Gītā puts it, the right attitude of the aspirant to the highest Vedantic Knowledge-the knowledge of the Self and Brahman. While one is on the path to such Knowledge, he must cultivate this attitude, and yet will have to "fight", as Arjuna had to fight, on to victory. When the goal is reached, this attitude becomes "habitual" and perfect in the "adept", so that he is non-violent, loving and charitable without effort or even deliberation. Though he has reached a level of perfection and wholeness in which all polarities and distinctions meet, and are exceeded, yet, his apparatus as a Centre, so long as it endures, will be one of highest ethical excellence by reason of the long and sustained ethical discipline to which it has previously submitted. The "inertia" of that moral discipline will keep that apparatus going perfectly right.

¹ Gītā, 12. 13.

We have seen what philosophical bases are provided by the Vedanta for the Ethics of the Gita. The Self is the natural object of love; and he who sees the Self in all things, loves all as he loves the Self. The Cult of Universal Brotherhood finds, in this way, its amplest and surest foundation in the Vedantic teaching of the Self in all things. And it is to be noted that the Self is in all things, and not merely in all men. The Vedantist, accordingly, loves all Nature-man, animal, plant, stock and stone. Stock and stone are not, matter, except from the narrowly pragmatic point of view, to him: they are a form or Centre of Being-Consciousness-Joy-Play even as he is; they are not simply "elements" of Brahman or Self, but the whole of it. So long as this supreme identity has not been proved for him, he has not reached the goal. In fact, one of the most effective methods of his culture (Upāsanā) is to break the bars of the prison of convention in which not only his own Self but the Self in all things has been confined. So long as the bars of the prison are not broken, the Self-Brahman is not seen in, and as, all things, and so long, therefore, emancipation is not attained.

An Indian Sadhu who dances before a congregation of men in a "mela", addresses each as his "own Rāma", laughs as an angel may laugh and sheds rapturous tears, may not be a lunatic. The boy Dhruva, searching after his "lotus-eyed *Hari*" in the forest, would thus see Him in the hissing snake, roaring lion or tiger, in the dark shadows that inspire and instil fear, in the sunny glens of the forest that rouse and summon hope. Another God-intoxicated boy Prahlāda, when challenged by his unbelieving and persecuting father to say if his *Hari* was in that marble pillar, would say, "yes, I see Him, father".

This ethico-religious side of Vedāntism provides a field of interesting and fruitful study, and, in this last Chapter,

we have been be able to cast no more than a cursory glance. It is true that different schools of Vedantic Thought have stressed on different aspects of ethico-religious culture: some, for instance, have laid special stress on the passing away of Ignorance and attainment of the Knowledge of the Whole and Perfect; others, while recognising this, have stressed on Devotion, Love and Service, and with the followers of thesewho form a considerable number-the Christians will no doubt feel themselves in perfect accord not only in Communing spirit, but as regards most of the essential elements of worship. Then, there are others, who, combining the features of both the above Methods, will lay special stress on Intensive Action and Yoga. And, it should be observed, that the relations of these Methods to one another are not of separation and opposition, but of special emphasis and supplementation.

The Self as Brahman is in, and as, all things, but things, that is, Centres and their aptitudes and capacities, are practically infinitely various; so that our programme of selfculture must be framed with reference to these varying capacities, with this guarantee that each Centre, working and developing in its own level and line freely, shall reach ultimately the plane of the Supreme and Absolute Self. The Gitā, to which we have referred, exhibits in a most beautiful way, the mutual relations and essential unity of the three Methods of Action, Devotion and Knowledge,¹ each of which is called by it "Yoga"-which is their co-essence., And Yoga means "Union", the realising of the Whole by what is, pragmatically, a 'part.' Whether in the final state the 'part' shall absolutely lose itself in the whole (as the Māyāvāda appears to teach), or shall exist in, and recognise itself as existing in, the Whole (as some other Vedantic Schools teach) may be an interesting point, but its settlement one way

¹ Karma, Bhakti, Jñāna.

or the other does not affect the general definition of Yoga above given.

Nor need we go into the question, often not very intelligently raised, as to whether Vedanta does not sanction a self-centred life, and one that connotes lack of powerthe sterner stuff of our moral being on which Nietzsche and others laid so much stress-in the ordinary, mundane realm of existence. That some types of Vedantic and Buddhistic Philosophy-especially as injudiciously extended and made available to the incompetent or those who are not fit to receive and profit by its teachings-have in fact tended to depreciate the humanistic and mundane values, is a statement that need not be denied. Such improper availability of the highest Truths for those who are unfit is strongly condemned by the Vedanta itself, and it is doubtless true that, in a measure, this has been responsible for the low efficiency of Indian life in the later eras of its history. Nevertheless, it is to be observed that humanistic virtues have not suffered to the same extent as the mundane virtues, especially those summed up by politico-economic solvency and efficiency. As regards non-violence in spirit, charity, toleration and love, the unsophisticated Indian masses (excluding a section of the mill and factory "hands", for example), have hardly their superiors in the masses of other races of the globe. But the "active" side has certainly suffered.

The same is true, more markedly and with more disastrous results, in the case of mundane and, especially, "national" virtues. There is evidence of increased inertia ("tamas") all along the line. This is precisely what ought not to follow from the premises of Vedānta. According to them, as we have seen, each Centre is an apparatus in and through which the Whole Cosmic Being-Power (as Joy-Consciousness) is *freely* operating; so that every Centre should feel that it is a Centre of unmeasured free Power, and essentially a manifestation of unbounded Joy-Consciousness, though, pragmatically, limiting itself. It is a complete reversal of Vedānta, if a Centre feels that it is poor, weak, enslaved, diseased, starved and cheerless.

But, on the other hand, it must be borne in mind that the *current* mundane values are not necessarily the best and the most substantial. The ethics of the Gītā not only allowed but encouraged Arjuna to fight—his external foe *as well as* his internal—to victory. But suppose instead of such ethics we adopt those of the Sermon on the Mount or those preached by Lord Buddha as preparatory to *Nirvāņa*. Will a race or nation adopting *such* ethics, absolutely unstintedly, as its practical home or international policy, have a chance in such a grabbing and mutually stabbing and robbing "common-wealth" of nations as we find our lot to live in to-day? If not, is the Sermon on the Mount to blame for that? Are we to blame Science again, because she is being *misapplied* on such a devastatingly and devilishly gigantic scale by the art of modern warfare, for instance?

A nation's practical ethics and philosophy should be such that it lives and can hold its own on their basis against any combination of hostile or disintegrating environmental forces; or, to state generally, to profit by those forces that accelerate or help its real advance, and resist those that obstruct it or turn it back or lead it astray. For this it is *not* necessary that it should always and in every case " move with the times ", as the phrase is; often particularly when the disposition of world forces takes a mischievous or sinister orientation, it becomes necessary that a nation should summon enough courage and strength to *refuse* to move (so far as that may be possible) or move *in spite of* the times. Now, I think it can be claimed for the fundamental teaching of the Vedānta that, if rightly imbibed and thoroughly cultivated, it *does* confer such strength. The key-note of this gospel is Blessedness,

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Fearlessness and Deathlessness,¹ and a nation living according to and up to this gospel, truly in spirit and in action, can never come to grief, or find that it has lived in vain.

In the closing paragraphs of this last chapter, I propose to refer for one moment to the Vedantic position in regard to two matters of vital interest connected with the nature and destiny of the Self: its Freedom, and its Immortality. From the outline of the Vedantic position that we have essayed to draw in these chapters, it would appear that freedom is not an acquired and imposed character of a Centre, but that it is intrinsic and essential to it. Not only a Centre as man, but every Centre of whatever kind, possesses it as its inalienable birthright. There is no possibility of "selling this birthright for a mess of pottage", or for any other thing. This freedom flows out of, and is an expression of, Ananda (Joy-Consciousness) which is the essence and radix of all being. The Brahman, it is true, has measured and defined itself in, and as, each Centre, and logically, this seems to be a contradiction or negation of what the Brahman in itself is. But such negation can never really mean that it has become the negation of Joy-Play-Consciousness. It can negate itself only in, and as, the practical "ignorance" of defined and measured Centres. Such negation is, therefore, negation-inaffirmation, or conventional negation of actual, real affirmation.

It is true that Māyā-vāda speaks of the Self ($\bar{A}tman$) as being absolutely unattached, and being neither a doer nor an enjoyer. But it is clear that *this* Self is the "Pure Æther" only of which we have spoken, and it is *not* what we have called a "Centre". To the "Pure Æther", pure Being, pure Consciousness, pure Joy and pure Action can and must be attributed, but as these lack special reference and form, they are, practically *no* Being etc., especially *no* Action. This, however, is a matter of convention and definition.

¹ Anandam, Abhayam, Amrtatvam.

Since, again, a Centre is the Continuum-Point in a certain position (as studied in the previous chapters), its freedom is limited and conditional only with reference to the convention of its position; in itself, and apart from such pragmatic reference, a Centre is the same as the Continuum-Point (which is the same as Brahman), possessing, therefore, a Freedom which is, really, unmeasured and unlimited, that is, absolute. A centre commonly feels that it has but a small "holding" in the cosmic scheme, and that its right of free action is defined and limited by the rights of countless other Centres. If this were its real and final position it could, no doubt, by successful "negotiation" widen its "wall" or "fencing", but the world being illimitably wide and time endless, it could never be possessor of all-it could never be the Whole (Pūrna). Human progress and evolution would then be unending in the infinite involution-evolution curve.

But the moment, a Centre is able, by Knowledge, Devotion and Yoga, to realize its real Self (that is, the Continuum-Point), it ceases to belong as a constituent "term" to the infinite series, the unending "spiral" of evolution; it escapes from the net of cosmic determination. Salvation or liberation is essential to a Centre: it is ever absolutely free. And it can realize this at this very moment, through "Grace", Knowledge and Yoga (that is, Union). The path of liberation is a laboriously long and arduous spiral ascent, so long as a Centre is in the scheme of convention which defines it as a finite Centre; but it is direct, immediate and complete, the moment it realizes itself as not defined and restricted by any scheme of convention whatever.

Not only man, but every kind of being, possesses this essential nature and carries the possibility of this supreme destiny, "more or less" according to chosen frames of convention, but absolutely and perfectly in itself. In fact, every form of existence is thus an End in itself, a Value, and

Power to realize that Value, in itself. There is nothing which is merely a means, a tool, an instrument or an occasion. The world is not merely a scene or a theatre: every atom of it is a Self—a Centre of Unmeasured Joy-Play-Consciousness.

The question of immortality finds also its most logical and reassuring answer from the fundamental premises of Vedanta. Not only is every Centre immortal in, and as, its "core" (before explained), but it is relatively immortal in what we have called its "sheaths". The sheaths vary, no doubt, according to Karma, but these in proportion to their fineness and essential affinity to the core, also substantially persist, as, for instance, in the grosser plane, the "body" persists, though every moment its constituent tissues are undergoing metabolic changes. The finer and more directly allied (that is, those expressive of Being-Consciousness-Joy-Play more fully and patently) sheaths endure and survive the death of the physical body. A Centre must continue as a Centre, with appropriately defined and constituted "sheaths", so long as its Journey's End as a Centre is not attained. It passes through many "births", and the characters and positions of these in the cosmic curve are not, in fact, determined by "external" agencies and forces, but by its own Karma, done now or before.

THERE is a sense in which, it may be thought, an apology is needed for introducing Vedāntism to the world of to-day. Vedāntism is generally believed to be a theory of life and existence which has tended to undermine the values of our ordinary worldly experience, and thereby to weaken the props on which our moral, social, and other institutions rest. It has been commonly understood to be a doctrine that reduces the world to an illusion, life to an empty dream, human personality (connoting freedom of action) to a deception, and the distinctions of good and bad, beautiful and ugly, and so forth, to mere futilities and conventions. If there is substantial truth in this charge so commonly brought against Vedantism-which has not unoften been held responsible for weakening of India's grip on the realities of life-, then an apology is certainly needed for introducing such a doctrine and cult of " practical inefficiency and failure " to the world to-day. This question of value (Prayojana) is a vital question in regard to any actual or proposed human discipline, practical or intellectual. At the very outset, therefore, Vedāntism is called upon to vindicate itself as a discipline which has some sort of real value. If it fails to do so, it becomes a discipline of no value; and may possibly be regarded as one of the unhealthy tumours growing on the brain of humanity, which the sooner it could be operated away the better.

VEDANTA NOT A DEAD THOUGHT

But whatever practical value Vedāntism does or does not possess, the fact cannot be gainsaid that it is not a dead, but a still living thought in Indian life (or in the life of the world if we take Vedāntism in a broad sense), for the matter of that. One cannot, therefore, afford to treat it as one would treat an archæological exhibit or palæontological fossil.

There is another sense in which no apology is needed for Vedāntism. Apart from the fact that it is to-day one of the most widely known and discussed systems of Indian thought, both here and abroad (though this does not necessarily mean that it is also the best understood and appreciated system), we have this significant fact becoming increasingly significant, with the progress of time, viz., that many of the deeper currents in the realms of Science and Philosophy are now seeming to converge to a position that is essentially similar to the position of Brahmavada in the Upanisads. Such progressively indicated agreement of ancient thought with the suggestions and implications, if not the actual findings, of modern thought is, of course, no absolute proof that either is true or valuable; but it at least raises the probability of their being so. The probative value of each is enhanced, if both pursuing apparently different avenues of approach, ultimately meet at a common point.

INDICATIONS OF UNITY

The clear indications of unity are becoming clearer day by day as enquiry is proceeding apace in Physical Science. The "units" of physical matter are no longer the "hard," separate atoms, but units of electric charge, positive and negative; so that the different "elements" differ not in substance of stuff but in constitution or as regards "atomic number". The "material" of matter is thus one. The current dynamical view of matter has further tended to reduce the "mass" of matter to purely electro-magnetic mass, and thereby, narrowed the gulf between matter and energy. This, in one sense, is movement towards the dematerialization of matter. The continuum of Æther of which the atom or rather the prime atom is still believed by many to be a strained condition, has become a "quasi" material medium itself which cannot be conceived after any mechanical model at all (perfect fluid, etc.), but whose properties may be stated in terms of certain differential equations. The Relativity Theory has postulated a still more undefinable frame-work for the universe-the four-dimensional continuum of points (point-events, intervals, tensors, and so on). And so,

though some kind of continuum (whether the Æther or the fourdimensional continuum of points) is strongly indicated in physical speculation, we have to start in the last resort, with what Bertrand Russell calls "an apparatus of the undefined". Hence the victory of fundamental unity and continuity is achieved in science at the cost of definability and measurability. As Prof. Eddington has remarked, the fundamental postulates of physical speculation are both undefinable and unmeasurable; then come certain entities (electricity, etc.) which are undefinable but measurable; lastly come the objects of experience both definable and measurable. Fundamental unity and continuity coupled with fundamental undefinability and unmeasurability are therefore, the plainest indications of current physical speculations.

Similar are the indications in biological science. In the first place, the two sister kingdoms of plants and animals are being more and more closely assimilated to each other, both as regards structure and functioning, with the progress of biology. In this connection the author has referred to the researches of Sir J. C. Bose, and discussed a recent address by him in which he demonstrated by means of the Electric Probe and Resonance Recorder the existence of a heart-mechanism in the plant-body. This light, lighting up as it does the hitherto unknown and unsuspected links of natural affinity and unity and continuity in the living world, also shows the deeper depths of the dark profundities of cellular life and existence. The highly specialized activities of the micro-organisms hardly distinguishable under the microscope; their "hobbies" or eccentricities; the mysterious affinities, and selections evident in the impregnation of the ovum and consequent fusion of the nuclei of the male and female elements: and many similar facts, while pointing to unity and continuity in the fundamental plan of Nature, also point to an "apparatus of undefinability" given in it-which, as Science progresses, recedes like the chased horizon, but never vanishes. Secondly, the Law of Evolution showing the community of the living species and their continuity of descent is also now an admitted fact; but the actual machinery-"modus operandi"-of evolution is to-day as keenly disputed and debated as ever before, and suggests, deep down

in the constitution of Nature, something which is fundamentally not amenable to definition and measurement.

TOWARDS MONISM

Then, lastly, as regards the "origin" of life, scientific thought has indeed been strongly leaning towards a monistic explanation (e.g., the colloidal theory, and so forth); but here, too, unity and continuity, are purchased at the cost of definability and measurability; for, even if life "spontaneously" originates from matter, life is not thereby "materialized"; since matter itself, in its last analysis, has become undefined and unmeasured. The idea of a "cell-soul" or even an "atom-soul" cannot be lightly dismissed as a pure myth. Matter on one side, and life and soul on the other, may ultimately meet and coincide. Science confirms rather than shakes such a hope and belief. But by such fusion, though unity is achieved, the vaunted definability and measurability of matter ultimately vanishes. The discovery of the hormone-secreting glands, to take one characteristic example, has shown that the mysteries of cell-metabolism, in the extent and depth of its structural and functional consequences, are truly profound.

Glancing lastly at the realm of Psychology—especially the interesting later development of it called Experimental Psychology and Abnormal Psychology—it is easy to perceive that whilst there is, doubtless, a community of mental life in the animal kingdom (possibly also the vegetable) including man, the consciousness of different men probably form parts of a common, cosmic consciousness (or sub-consciousness); that individual souls are bargaining with one another in a universal "Over-Soul" medium.

HYPOTHESIS OF A "NEUTRAL BEING"

Unity and continuity are unmistakably indicated; but the fundamental mystery has also become deeper. The relation of the cosmic psychic stuff to individual stuff, the relation of matter to mindhave indeed tended to become a monistic relation, but along with

this monistic perception in science has grown a perception of fundamental undefinability and unmeasurability. Dualistic, Materialistic, Parallelistic, and Idealistic versions are all found to be inadequate. A "Neutral Being" with an "apparatus" of the undefinable and unmeasurable given in it, which, in the words of Bertrand Russell, makes "matter less material and mind less mental," is indicated at the root. It need not, however, be the "Thing-in-itself" of the Unknowabilist. It may be Being-experience whole or "Fact". This is the fundamental "Brahman" of Vedānta.

THE NATURE OF BRAHMAN

That the plainest indication of modern scientific tendencies as to the fundamentals of the Universe is increasingly in accord with the deepest teachings of the Vedanta, can be shown by a consideration of the oldest texts relating to the nature of "Brahman". It is true that in the Rgveda, particularly in those portions of it which modern research regards as the "older strata", the term "Brahman" is commonly used to mean "sacred lore", "holy inspiration", and the like; but the, fundamental idea of Brahman (as the continuum of Being-Energy, undefinable and unmeasurable as a whole, which sustains all finite forms of being and out of which all forms spring) runs through the literature of the Vedas as "Aditi" (for example) in the Rgveda, and as "Skambha" (for example) in the Atharva-veda. The latter, as even a cursory glance at the Skambha-Sūkta (10-7) will show, is on the face of it a Brahman-conception with which the Upanisads have made us familiar. As regards the former, "Aditi", the implications seem to be equally clear. Max Müller regarded it as one of the oldest of Āryan concepts, and though in the Vedas, "Aditi' has been made to appear in a variety of rôles, it is undeniable (as Wallis, Oldenberg, Macdonell and others have recognized) that the underlying idea of "Aditi" is "freedom from bonds or limitations". Orthodox commentators (such as Sāyaņa) also take it to mean "the Undivided, the Continuum". We may take it, therefore, as a generally admitted position that Aditi in the Vedas means the undefined and undifferentiated Basis of all polarities and

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differentiations in the universe. The Brhadāranyaka Upanisad makes it the consumer (from root "ad") of all things-that is, the ultimate ground in which all differentiations (symbolically "annam" or "food") are swallowed up. Aditi is the parent of all the "gods", and, particularly of "Dyauh" and "Prthivi". These latter have commonly been grossly understood to mean "heaven" and "earth" respectively. But a close examination of the texts (not discarding the light thrown upon them by "later" Brahmanas, Aranyakas and Upanisads) will show that these, like "Aditi" itself, are universal concepts of which Heaven and Earth, amongst others are particular representations. Consistently with this view " Dyauh " and "Prthivi" represent not only heaven and earth, but any two ' poles' of being which have differentiated themselves from each other; they may be subjective or objective, great or small. For instance, two unit charges of electricity, positive and negative may be called "Dyauh" and "Prīthivī", and the interval between them "Antarīksha". The "interval" between two "point-events" in the Relativity Theory may also be regarded as "Antariksa". The two "aranis" (pieces of wood) which by friction produce fire may be similarly described as also "Ūrvaśī" and "Purūravas" who symbolize the two " aranis". Briefly, "Aditi", "Dyauh", "Prthivi" etc. as conceived in the Vedic literature, should not be rigidly identified with this natural object or phenomenon or that, but should be regarded as universal concepts having particular representations. This is a meaning not read "into the Vedas, but one that can be found in it and got "out" of it. Now, the basic conception of Aditi is the basic conception of Brahman. Other well known Suktas in the Rg-veda and Atharva-veda show that the nucleus or kernel round which ancient theosophic and theogonic ideas rested or grew is the idea of a Continuum of Being-Energy, undefined and unmeasurable in itself-which is the idea of "Aditi", and also the equally ancient idea of "Varuna".

BRAHMAN IS ALOGICAL

The Upanisads in many places, applying contradictory epithets (as does the Kena Upanisad, for instance) to Brahman, convey to us

the deepest import of ancient Brahmavāda, viz. that Brahman is alogical—a substratum of Being-Energy too immense (Bhūman) tobe cast into any of the "moulds" (categories) of logical thinking. This is also the essential idea underlying the teaching of "Bhūman" in the seventh chapter of *Chāndogya Upanişad*, where the polarities of subject-object, seer-seen etc. are negatived with regard to the Supreme-Being-Experience.

The Upanişads make another feature clear as regards the Alogical Continuum of Being-Energy, viz. that it is Experience. Brhadāranyaka calls Brahman "Sākṣāt aparokṣa"—immediate experience; Kena Upanişad says that Brahman is "pratibodhaviśavam"—intuitively given in every fact of experience as its veiled (that is, unrecognized) background.

Such immediacy of Brahman together with its fundamental alogicality and unmeasurability makes it a "Patent Wonder" instead of a hidden wonder—an "inscrutable Power", an insoluble "Riddle" or "Enigma" (as Herbert Spencer, Ernst Haeckel, E. du Lois Reymond in the last centuries would regard it respectively). In other words, ancient Brahmavāda is in advance of scientific monism of to day in that it has found Brahman beyond and behind limited. and pragmatic experiences, but not beyond Experience-Whole.

THE KERNEL OF BRAHMA-VADA

Now, this "kernel" of Brahma-vāda is more ancient than it is generally thought to be. Whatever may be the case with the special growths or "refinements" of the kernel, the kernel itself is discoverable in all the strata of human culture, and can be found in all the ages and epochs of the long history of human evolution of which we possess archæological or historical record. It seems to be a "hometypal" idea which, whether in an intuitive or in a reflective way, has underlain the whole mass of human beliefs and practices since the very first appearance of the Eoanthropus ("Dawn man") and Homo Sapiens.

In order to perceive the universal pervasiveness of the Brahman-Experience in the human race, one must not take it in a restricted

sense to mean any of its actually formulated types such as the Māyāvāda of Śańkara or the Absolute Monism of the Greek Eleatics. Brahman-Experience may form part of the structure of the intuitive beliefs (almost sub-conscious) of humanity, or part of the structure of its reflected thought. This latter may be either formulated (that is reduced to system), or unformulated. The former, again, may be of two types: (1) practically or experimentally formulated (e.g., Kepler's well-known laws of planetary motion had been practically formulated by him: and, later, they were theoretically formulated by Newton with the help of his laws of Motion and Gravitation; similarly, in the Upanisads we read stories of aspirant disciples who were "gradually" led to realize the nature of Brahman practically through such tentative and leading conceptions as Brahman is "food", Brahman is "life", Brahman is "mind", and so on until the Pūrņa or Whole itself was reached.) Or (2) it may be theoretically formulated as by Bādarāyaņa in his Brahma-Sūtra, and by the various schools of its interpreters. And since the essence of Brahmavada is the common heritage of man, we may expect to find its unformulated and formulated types that are not merely Indian, but that are extra-Indian also; which are not merely historic, but are "prehistoric" and "proto-historic" also.

As regards the anthropological and ethnological aspects of the question, ever since the time of Rousseau's "noble savage," scientific opinion as regards the actual state of culture of the modern savage as well as of the "ancient hunters" has been sharply divided. Appreciative and depreciative valuations are still both current; but, broadly speaking an outlook, more generous and sympathetic than it used to be, has been steadily opening up before our eyes.

THE FORBEARS OF MAN

A simple derivation of the existing human races (particularly the more advanced races) in an unbroken direct and steadily progressive line from some "missing" type of the anthropoid ape in the late tertiary or pleistocene age is no longer found to be possible. There can probably be no doubt about "the common

stem" and the fact of evolutionary descent itself of man: but the tendency of modern anthropological thought (as represented by Sir Arthur Keith and others) is to regard the Pithecanthropus erectus of Java, the Heidelberg man, Piltdown man, Neanderthal man as not in our direct ancestral line, but as collateral branches: and as far as our imagination stretches back into antiquity, the picture presented is not one of simplicity but "a complex of ancient humanity" about whose ethnological characters it is impossible to make any definite assertions.

Coming down to the Cro-magnon race in Europe and Aurignacian culture of which we now possess some archæological data, it can only be a travesty of the truth to maintain that they were "brutes," devoid of the rudiments of culture. Their artefacts and other archæological signs point unmistakably to magic occupying the centere of their religious beliefs and practices. And what is true of them is true of other "lower cultures," ancient and modern, elsewhere on the globe.

MAGIC AS PRIMITIVE SCIENCE

The underlying idea of magic (however intuitive, unformulated it may be at times) is now better appreciated. The old, easy rule, viz. the more abstract and universal an idea, the later is its development in cultural history-must now be revised and reunderstood. The rule may hold good as regards reflective and formulated ideas but not so far as essential intuitions of man are concerned. Now, in magic, the palæolithic and prepalæolithic man, as also the modern savage must have an essential intuition (that is, probably neither reflective nor formulated) of a Universal Dynamism: undefined and unmeasured, by which man and every other being is encompassed and to which it is possible (so the "savage" believes) to establish connexion by magical rites (such as the raindance), and thereby bring about the desired results. It is, therefore, a sort of "primitive science" and its basis is an intuition, very lively and exacting though inarticulate of an undefined Universal. Being-Energy. This is a kind of Brahman-Experience.

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The author in conclusion has shown this by alluding to such "primitive" conceptions of an indefinite Being-Power as the "mana" of the Polynesians, "orenda" etc. of some American tribes. "Ahai" of the Zunis of Mexico and so on. Some may still doubt the "breadth" of these notions; others following Tylor, may call them pantheistic animisms. But it seems likely that in all these we at least touch the very kernel of ancient Brahma-vāda.

BRAHMAN UNDEFINABLE

Brahman is undefinable and immeasurable Being. Since evidence in the realm of ordinary experience can relate to what is definable and measurable, Brahman is beyond the ordinary kinds of evidence such as sense-perception and inference. Sense-perception can give us what has definite "form" and inference is possible from data which gives us definite marks or "signs". But Brahman is without a definable form ("Rūpa") and without definite signs ("Linga"). This remains true whether we take Brahman as Pure undifferentiated Being-Consciousness-Bliss, or take it as an infinite richness of powers and qualities and manifestations.

BOTH IMMANENT AND TRANSCENDENT

But as the Whole and Unmeasured Brahman can neither be excluded from the ordinary experiences which necessarily limit and measure, It is "in" them, and yet "exceeds" them. It exceeds the universe itself of myriad forms "by the measure of ten fingers"—as the famous Puruşa Sūkta in the Rg and Atharva Vedas puts it in cryptic language. The experiences of the amœba, as also those of a Sankara and a Kant are, in reality, Brahman experiences; though, in the "conventional universe" these represent different points of view and "apparatus" for making "cross-sections" of the Whole.

THE INHERENT IMPERFECTIONS OF INDUCTION

Sense-experience and inference based thereupon have their inherent limitations. The Inductive Principle, as Bertrand Russell

and others have shown, can establish only a greater or less degree of probability; and though repetition, non-occurrence of exceptions, and so forth, may make the probability in a given case approach very near to certainty (as for example-the Sun will rise to-morrow), a residual margin of uncertainty and doubt does remain in every case. In this connexion the lecturer discussed at some length the apparatus of logical proof (Pramāņa) which has been developed and perfected with such consummate skill by the logicians, and particularly the neologicians of India. Examining the apparatus of inference ("Vyāpti, Hetvābhāsa" etc.) as developed especially in Mithila and Bengal, the lecturer observed that in "theory" it may be deemed as perfect as any machinery developed by imperfect human intelligence can expect to be and it is really no detraction from the glory of the "informing" genius of Mithila and Bengal that in practical application the apparatus does not work as easily and smoothly as it does in the realm of theory and pure symbols. "All" abstract principles and canons, whether in mathematics or in logic, are liable to feel "awkward" in the crude, common world of sense-data. The author has shown in particular, by means of diagrams and symbols how the definition of "Vyāpti" or invariable relation as given in neologic has been perfected to reduce to the vanishing point the possibility of fallacies creeping into inferences drawn on the strength of "Vyāpti" so defined. But though the deductive fallacies are thus well kept out, one can never be so sure of the inductive fallacies the moment one comes down from the realm of pure symbols to that of the facts of concrete experience. When we substitute "smoke" and "fire" for B and A in the canon of "Vyāpti", we are admittedly on insecure ground. Just as smokeless fire is known and was contemplated by the neo-logicians, so fireless smoke may some day be known-smoke may, possibly, be produced by an agency other than fire. This, however, is a contingency which threatens " all " inferences as to facts of experience.

Nevertheless it is worth our while to develop a 'theory' of the conditions of valid inference, or other forms of right knowledge for the matter of that. In mathemetical physics, for instance, theories are developed, which though they may not "completely"

sum up and apply to the routine of experience, are yet valuable as "forms" or "standards" applicable to "ideal" cases.

THE CONTRIBUTION OF NAVYA-NYĀYA

The service rendered to the cause of science and philosophy by the Neologic of Mithila and Bengal must be deemed valuable in this sense. What is now required is to develop the applied and illustrative side of this logic in view of the wide extension of knowledge from observation and experiment practically effected in every sphere. The apparatus of neologic has proved very helpful to later schoolmen in enunciating and formulating the basic doctrines of their schools with scientific precision-a degree of precision which cannot fail to evoke admiration in the minds of all serious students. The Upanisads are, of course, the unfathomed mine of Vedantic lore but the language there is often cryptic and ambiguous. Even the Brahma Sūtras, formulating the doctrine, has in practice, proved a starting point of many divergent lines of interpretation. The neologic technique of later Vedanta Mimamsa and other systems, has been helpful in this that it has clearly defined and stated the position in each case; and though such defining is no solving of the problems involved, it is at least a first step made towards it. That technique the student should, therefore, master.

NEGATIVE RESULTS

In view of the essentially indefinable character of Brahman, the argumentative part of Vedānta has been productive chiefly of a negative result. It has served to demolish the pretensions of those methods that have proceeded to define and measure, overtly or otherwise, Brahman itself.

PRAGMATIC METHOD INADEQUATE

Ordinary perception, too, has its necessary limitations. Each perceiving "Centre"—whether an amœba or a man—is a special

kind of apparatus for making a cross-section of the Whole; and since the given apparatus are of different kinds, the cross-sections are necessarily different also. It is not easy, therefore, to determine truth or validity by the test of "correspondence" between the Whole and any one "cross-section". Though different cross-sections. of the Whole made by us may have a common element which we practically agree to call our "objective realm" that realm gives us nothing as the guarantor of truth as such. Evidently, truth must not be conceived as something rigid and unmoved, but as a developing series or grades of values. Our lay experiences, expert experiences, those of the animals and possibly also of plants, each has its place in this "ladder" of values, higher or lower. The question naturally arises: What is the highest rung or level of this ladder of values-or what is Truth from the point of view of the Whole and Unconditioned?

It is clear that the discovery of such Truth ("Satyam") is the "discovery" of Brahman. For this discovery the pragmatic methods are insufficient.

SRUTI AND VEDA

The nature of Sruti, Veda or "Revelation" has not, commonly, been correctly understood. The former term comes from a root meaning "to hear," and the latter from a root meaning "to know". The former indicates that the Veda is a body of knowledge which is communicated. Knowledge must be taken in an extended sense to mean Experience. This may be either perfect or imperfect, direct or indirect; Veda, in the ultimate sense, means Perfect Direct Experience. It is the same as the Experience of the Perfect Continuum-Point or Isvara. Evidently, in this Experience, the collateral streams of Name, Thought and Thing which appear to flow separately in us, unite: Perfect Experience is the plane of perfect "Natural Name" (Sabda), perfect Thought (Pratyaya) and perfect Thing (Artha).

The "descent" and "reproduction" (so far as it may be possible) of this Perfect Veda in the "Centres" below the Supreme 20

Centre, is Sruti or Revelation. In such descent, the streams that unite in the Perfect plane, divide; so that, to us the Word of Sruti, its Meaning, and its Object, are different, and separately realizable. Again, in such descent, the Perfect Experience becomes conditioned and limited, more or less, by the capacity of the given Centre.

The reproduction of the *Veda* in a given Centre may be common or uncommon. The former is the "cross-section" which that Centre makes, in the process of its ordinary, current experiences, from the Perfect Experience. In this sense and aspect, the commonest experience of a Centre is *Veda*, is "revelation".

But the uncommon type is the more important. This uncommon experience (including *Sabda*, Artha and Pratyaya) may be "acquired" or "received" or "communicated". Thus a scientific observer or a Yogin may directly acquire a body of experiences, whereas a body of experiences may be "communicated" to him. This latter we may proceed to directly acquire, and personally to verify. He either is or is not able to so verify it. If he is, *Sruti* (Revelation) ceases to be mere revelation to him; it becomes also his own experience (Pratyakşa). If he is not, it is *Śruti* to him, not Pratyakşa. The extent to which he is able to make the "Revealed word" his own experience varies. Commonly, a gulf remains between the two.

Perfect Word, Thought and Thing is not capable of being communicated *perfectly* to "imperfect" Centres. So that, a Centre not only is not, commonly, able to verify the "Word" completely, but cannot, also, "receive" it perfectly. Commonly, there is a defect, greater or less, in the "reception" of the "Word" (Experience being communicated) as well as in its personal verification. A Centre is called a "Seer" (Rsi), when, according to chosen standard of correctness, the defect becomes practically negligible in either case.

Śruti, therefore, is not the personal (and uncommon) experience of the *Rsi*, though he may, and as a matter of fact does, essay to verify it either completely or in part. In the former case, *Śruti* becomes his own *Pratyaksa*, as it is the *Pratyaksa* of the Supreme Centre. In the latter case, it remains *Śruti* to the extent he is not able to verify it.

Nevertheless, the *Śnuti* as the Standard or Classics of Experience (involving Word, Thought and Fact), is transmitted through a line of "receivers" and "transmitters". The receivers and transmitters, as we have seen, are also each a verifier—to the extent of his capacity. The line starts from the plane of the Supreme Centre, and comes down to the plane of ordinary Centres such as we are. In the case of every Centre, be he a R_{si} or an ordinary man, the line of communicated Word and Knowledge must be distinguished from that of personal experience: the two keep apart; they completely meet in the Supreme Plane, or in the experience of the R_{si} who may attain to the Supreme Plane.

The line of communication as also that of personal verification in any plane is conditioned by the factors of V and T (Veiling and Treating), before explained, incidental to that plane. These, as has been elsewhere explained, are the true meanings of Madhu and Kaitabha—the "demons" who wanted to kill the Lord of the Created beings (Prajāpati) in His essay to create the world out of Veda or Divine Word and Experience—often figuring in the Paurānic "myths". V and T must be reduced as near as possible to zero in order that Veda in the Highest Plane may be truly communicated and received in the lower planes; and this is also the condition that a Centre in the lower planes may correctly and completely verify in, and by, his personal experience the received Word and Knowledge.

This theory of Sruti is, as we can easily perceive, based on the general premises that we have sought to establish in the main body of these lectures relating to the nature of the Continuum Point and the Centres.

We may proceed either from the general premises, or from the natural imperfections of our senses and other experiences. The consideration of these latter—progressively rectified in the experiences of the "expert", whether scientist or *yogin*—suggests an ideal Limit or Standard which is the *Veda* in the Supreme Plane. It also suggests a descent of that Standard Experience (Word) to the planes of the subordinate Centres, running as the "Major Axis" from which the personal experiences of those Centres start and diverge. Certain Centres are able to keep very near to the Line of the "Major Axis" and they have been called *Rsis*.

This is, briefly, the *theory* of *Sruti* or *Veda*. And it is a noteworthy fact that all ancient religions and cultures have accepted this theory. The general principle underlying this theory ought not to be allowed to be obscured by the fact that different cultures have claimed different Revelations as being the true one. This latter is a question of fact. And if we bear in mind the implications of the general principle here enunciated, we shall, probably, discover a clue leading to a working reconciliation of these apparently mutually opposed claims. Thus, inspite of the discrepancies and contradictions, it may be possible to discover substantial agreement and a substratum of Truth in *all* the Revelations. In fact, Revelation is a perennial fact; and its apprehension and appreciation are both conditioned by the V and T incidental to the planes where it may be "received". Every Centre and plane is, to some extent, a "coherer" of the "radio waves" of the Divine Message—the Perfect word.

The Vedāntic Texts very prominently put this aspect of the matter before us. They tell us—(1) Veda is Brahman; (2) all Centres share in It according to their capacity; (3) apart from the personal experiences of the Centres, there has been a "descent", through a line of especially competent Centres called *Rsis* of the Veda to our planes, representing both Vidyā (knowledge of Ksara and Aksara) and Word; (4) any Centre can prove It by his personal experience; (5) a Centre absolutely completely proving It becomes Brahman and is freed from "bondage".

In the Vedānta, the *Śruti* has often been referred to as *Pratyakṣa*, and we now see what is meant by it. All interpreters agree in regarding *this* as the final authority or evidence, especially as regards objects that lie beyond, or are unappreciated in, ordinary experience. Reasoning, deductive or inductive, based upon ordinary sense-data *may* point to truth as regards such objects, but it is, from the nature of the case, inconclusive.

One of the most vitally interesting problems is, undoubtedly, the problem of life and death, and the destiny of the soul. Philosophy, ever since its birth, has addressed itself to this problem, but it cannot be claimed on its behalf that it has ever brought us to a position from where we can say that the solution is in sight at last.

VH9OPOLIHI AND SUMMARY 309

Scepticism about, as well as belief, in the immortality of the Soul both seem to be equally ancient attitudes of the human mind, and both have lived to this day.

The position of the Vedanta-which is, substantially also the position of other ancient cultures, high or "low" is typically represented in the ancient wisdom-transmitted through a line of "Seers", who were also, according to their varying capacity, experimenters and verifiers,-called the Pañchāgni-Vidyā" inculcated especially in the Byhadāranyaka and Chāndog ya Upanisads. The two post mortem "Paths" ("dark" and "bright") showing the circuit described by a five after death are the theme of many other Revealed Texts, and we have an authoritative pronouncement on them in the eighth chapter of the Gītā also. The Egyptian Book of the Dead, and similar ancient Texts in other cultures of antiquity show that the doctrine was part of the ancient structure of human belief with variants that we might regard as inessential. This belief lay at the root, and inspired the immemorial institution of Magic also.

The researches of the Neo-Spiritualists of to-day, apart from the fact, still disputed, that they are collecting fresh evidence and throwing light on the old (as regards the main features of the survival phenomena), is, at least, proof that the ancient belief referred to is not dead, and is today sufficiently insistent to engage the serious attention and investigation of some of the best intellects of the age.

The belief, in its essence, is sanctioned by the authority of Sruti; but a Centre can also essay to verify it, to a greater or less extent, by experiment. Sruti itself lays down the method whereby a successful experiment can be instituted by the investigator. In Yoga (See Yoga Sūtras, Vibhūti Pāda) the method is defined in precise terms, as an actual mode of experimentation may, for instance, be described in a scientific treatise. The famous boy, Nachiketās, in the Katha Upanişad, the muni Jaigiśavya, Rsi Vāmadeva, and others mentioned in the Purāņas, are some of the classical experimenters. There, in fact, have been "mystic" experimenters in all ages, and, in the proceedings of the Psychic and Spiritualistic Research we are,-one may venture to think-having an endorsement of the labours and results of the bygone times.

The revised and "enlightened" conception of the "Centre" to which Philosophy, moving in the wake of Science is steadily coming, shows that the *rational* basis of the ancient human belief may not, after all, be so flimsy as the narrow "bigotry" of the last century's "rationalism" generally thought it to be. We have attempted to present a view of the Centre which, we think, shows that immortality, like freedom, is its "birth right", since, according to that view, it is *really* the Continuum-Point, and as such *continues to be and become*.

Since the Continuum of Being-Power involves Itself as the Point and evolves as Centres in various planes and positions to become the Continuum again, every Centre represents an attitude of the Brahman's Will-to-be-and-become, and consequently, it cannot cease to be so long as the "motive" or "Will" ($K\bar{a}ma$ or Sankalpa) at the root of it persists; that is, so long as the End or Purpose involved in its being is not realized. We have seen in the main body of the Lectures under what circumstances and by what methods the End,. viz., union with Brahman, is, or may be, realized by a Centre.

The Centre itself is an expression and apparatus of the "Will"; so that it is, essentially free, and does *Karma*. By *Karma* it is remaking its apparatus and redistributing itself in the cosmic scheme of "configuration". This means that a Centre is what it is by its *Karma*, and the infinite curve of its life is described by its *Karma*.

Its Karmic conditions determine whether the "seed" of a Centremust be born into a certain "type" of being (living or non-living), continue in it, or leave it, and be born into another. So long as it enters into and remains in a given "type", it exhibits the typal characters defined by the laws of heredity; but it still bears a potency of being-efficiency vaster than that of the given "type"—one in which the potentialities of many other "types." lie implicit; and, above all, the power to choose by *free act* whether it shall continue in that type or exchange it for another—higher or lower. This power may be unmanifest in certain "types" of Centres, but it ever is; since, the Centre is a particular expression and apparatus of Unmeasured *Ananda* and *Lilā* which *Brahman* is.

-The Bengalee, December 1927.

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