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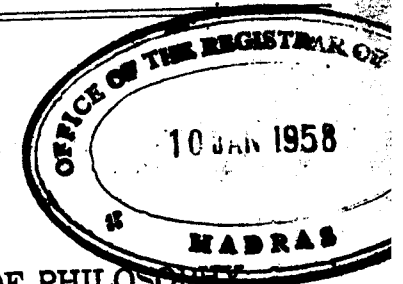
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[January, 1958

Philosophy, Philosophers and Philosophical Analysis

by

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Bertrand Russell, in an article on 'Philosophical Analysis' in the Hibbert Journal of July '56 has taken to task the philosophers of the present day, who, as he put it, 'abandoned without necessity that grave and important task which philosophy through ages has hitherto pursued!' He bemoans that the new philosophy has failed to carry out the best traditions handed down to us by the Greek Philosophers from Thales onwards who have tried to understand the world, whether successful in their efforts or not. The reason for the restriction of philosophy to triviality, Russell imagines, is the desire to separate it sharply from empirical science. I should think the reason is not just the desire to separate Philosophy from empirical science, but something deeper; if it is just that, it is nothing new. From Plato down, the burning passion of almost all the philosophers has been to draw a line between the empirical and the non-empirical; in fact, it was this distinction that had been the perennial source of many of the interesting problems of philosophy for them. The edifice of some of the noblest of all the Idealistic philosophies of the world was built on just this, the separation of the empirical and the non-empirical, which latter was the Real according to them. It would be uncharitable to think that there is triviality in any of these systems, even if one were unable to agree with their standpoint.

It is not a desire to separate philosophy from empirical science, but a certain destructive attitude of the present-day philosophers towards Philosophy that is responsible for its present plight. The present temper is something like 'Give the dog a bad name and hang it'. Bertrand Russell, to my mind, is not a little to blame for the hanging of this innocent, but well-bred dog. He is, if not the actual criminal, at least an instigator and an active abettor in the crime. His protests and warnings against the new philosophy, though coming late in his life, should be heeded even at this late hour, if for no other reason than that they come from one of the greatest philosophers of our time, who was himself a victim of the flood of this new philosophy, and was among the front rank of its casualties.

The 'philosophical analysis' to which I attribute most of the ills of the present-day philosophy, is nothing new as a method in the history of philosophy, although in its modern version it has all the vices—but according to its modern proponents, virtues—by virtue of which it has acquired certain techniques which helped to destroy everything in their wake, but not create or construct anything. This method in a special sense dates back to Descartes in modern philosophy, and the subsequent overdoing of it has brought philosophers down into the mire from which they were now unable to extricate themselves. The 'great' Wittgenstein and the Vienna circle who were the master craftsmen had but sharpened their instruments by cutting off the last vestiges of metaphysics from the body of human knowledge. The result was, we were not left with a philosophy which concerned itself with the world and our relations to it, but only, in Russell's own words 'with the different ways in which silly people can say silly things'.

The above remarks, however, should not be understood—or rather, misunderstood—to mean that there is intrinsically something wrong in analysis. I have absolutely nothing against analysis as a method which, so far as I know, is age-old. It has its place and proper function; but when it is taken out of its place and compelled to assume new functions, then it becomes mischievous and brings trouble; when misused and abused it reduces philosophy itself to nothing. That is exactly what happened and what is happening now, and that is exactly what the positivists did and are continuing to do, namely, to misuse the instrument, with the result that philosophy at their hands has certainly been reduced to a mere 'triviality'.

Before dealing with Philosophical Analysis as it is now understood, we shall briefly consider how analysis had come to be used in Philosophy. If by analysis is meant discrimination and selection of facts relevant to the problem, eliminating such as are irrelevant, let me declare at once that no branch of knowledge, be it physics or philosophy, could dispense with it, because it was definitely the first stage in any endeavour to understand a phenomenon. A certain amount of spadework is indispensable for any 'scientific' investigation, the term 'scientific' understood in the broad sense, meaning 'systematic'. This, however, is analysis of the data of a problem, not by any means, analysis of the problem itself. What we do is simply to clear the rubbish and remove some earth, and thereby expose the root. In doing this of course we must use the proper instruments. The instrument should not be such as would cut away the root itself, nor such as would cover it with more rubbish instead of removing it. In any case, the rubbish should not be mistaken for the root, nor should the endeavour be thought to have been ended on the exposure of the root. Analysis, in short, only exposes and defines the problem, does not solve it.

The use of the method of analysis in philosophy is by no means a recent innovation. It was used with utmost profit and advantage by the Greeks as well as the Hindu philosophers. Socratic method was nothing if it was not philosophical analysis, and Plato's Dialogues exemplify the method at its purest and best. In the Upanishads and many ancient Hindu systems we find clearest exposition of several philosophical doctrines with the aid of this method. All these illustrate the process of sound philosophising which, according to Russell, "consists mainly in passing from those obvious, vague, ambiguous things that we feel quite sure of to something precise, clear, definite, which by reflection and analysis we find is involved in the vague thing that we started from, and is, so to speak, the real truth of which that vague thing is a sort of shadow". Not only sound philosophising, but sound reasoning or thinking itself consists in this, which we name systematic or even scientific thinking.

This ancient method had however undergone some twists in the works of some modern philosophers, until in recent times at the hands of the logical positivists it ceased to be a genuine method for comprehending philosophical problems. The present-day philosophical analysis has to such an extent lost touch with philosophical problems, and is so far removed from being genuine analysis, that it wouldn't be far wrong to dub it 'nonsensical analysis'; the

use of the word 'nonsensical' needs no apologising, because the avowed business of this particular brand of positivists is to analyse metaphysical 'sentences', and reduce them finally to 'nonsense'. If that were their sole business, one would wonder who would supply them with a fresh stock of sentences when they exhaust the whole lot of them! Well, I believe they would then keep busy evolving the Ideal Language!

The difference between the physical analysis and the metaphysical analysis is that in the former there is an actual reduction of the complex to the simple, but in the latter the simple is only simple relative to the other terms of the series. In the former, we deal with quantity, and quantity certainly could be broken up into isolable units. Hence the whole is just a sum or aggregate of the units, and so we would be perfectly justified in using the method in order to understand the whole. But in metaphysical analysis we are dealing with not quantitative wholes, but genuine wholes which definitely are not combinations of units. The very word 'analysis' is a misnomer used in respect to metaphysical enquiries. All metaphysical enquiries are only attempts at correct 'definition', and if analysis precedes such definition, it is only analysis of the nature of elimination of the irrelevant, selection of the relevant, clarification and explication. The word 'definition' itself may be used in a broad sense to cover this whole procedure, to distinguish it from physical analysis. It should be understood that definition is not mere passive understanding, but an active procedure and a process. Plato's dialogues abound in instances of philosophical analysis of this sort. Take for instance Plato's enquiry into knowledge in 'Thaetetus'. He proceeds step by step—knowledge as sense-perception, knowledge as true judgment, knowledge as judgment plus an 'account', and true knowledge as knowledge of the universal. In each one of these stages, knowledge is that and yet not that, by which we mean each one of them is true but not completely true. Here we are dealing with value which is a quality, and so we should talk in terms of degrees and relativity in respect of validity. Again, take an instance from the Upanishad (Chandogya Sec. 7), Prajapati's instruction to Indra concerning the Real Self. Prajapati's instruction begins with the self as the bodily self, and ascends gradually through progressive steps to the idea of self as pure spirit. These are not merely 'intellectual' steps for an academic understanding, but stages in the progressive realisation by the will, of the highest knowledge which each has to attain for himself.

Descartes, the mathematician and philosopher, gives an account of analysis which is quite different from this ancient usage. He proceeds on the assumption that "every complex must be resolved by analysis into simple constituents or parts, and then, by inverse process synthesised by combining these constituents in such an order that their inter-relations or connections when they are combined together are manifestly intelligible" ("The method of Descartes" by L. J. Beck). He did not make an exception in the application of this method with respect to metaphysical enquiries, which goes to prove that he considered that all complexes, be they physical or metaphysical, are amenable to this type of treatment. As I have already pointed out, this type of analysis, applied to metaphysical problems, would help only to clear false notions and clarify the problem, but would certainly not solve the problem. I would consider it wholly ridiculous if anybody seriously believed that Descartes had established a necessary proof for 'existence' with the help of his analytic method. His famous dictum 'I think, therefore I am' would be wholly unwarranted and could even be absurd if the conjunction 'therefore' is taken too seriously. If proofs could be discovered and established by mere 'psycho-logical' analysis, metaphysics could have advanced by leaps and bounds, and have overtaken even the natural sciences in its results. But the fact was, metaphysics is now what it was in Plato's time, so far as establishment of truth is concerned. This is not to say, however, it has not advanced in other respects. What Descartes had achieved by his analysis was not establishing of Truth, but only paving the way in his own humble way to knowing the truth. He 'discovered' in the course of his meditations that whatever else he could doubt, e.g., walking, seeing, feeling, etc., he could not doubt one thing, namely, the fact that he is doubting or thinking, and that therefore thinking is fundamental to his being. Here certainly there is semblance of a conclusion, but not a proof. Others for equally cogent reasons might 'reverse' the conclusion and say that they could even doubt that they were doubting, but they could not doubt the existence 'of the doubter', and so existence or being is more fundamental than 'thinking'. Still others for reasons best known to them, might assert that from every conceivable point of view, logical, chronological as well as psychological, it is God that exists. God exists; therefore I exist, think, behave, feel etc. When once God's existence is there, it makes little difference whether I think because I exist or whether I exist because I think. Our positivist friends would, of course, simplify the whole matter and reject the entire

argument as beside the point, and assert that this problem is a 'pseudo-problem' and as such 'nonsense'. When so much disagreement is possible, how could there be any proof and certainty for solutions of metaphysical problems, analysis or no analysis! By all means, "divide up each difficulty into as many parts as possible and as seemed requisite for proper solution", but it would still only be dividing up, and not a solution. Analysis and synthesis are only steps in the process of definition which help only in the clarification of the problem; and clarification of the problem is not the same thing as its solution. It was a mistake for Descartes to have considered his method universal in the solution of problems, the method of science as well as of metaphysics. In science this method solves problems, in metaphysics it only presents the problems in a clearer perspective. The problems of metaphysics remain yet problems, however much they get 'polished' as a consequence of analysis and differentiation. The rules of Descartes do not help us to discover truths, but, in the words of Gilson "demand that we should acquire an intellectual habit".

Both Rationalists and Empiricists who followed Descartes have consistently used this method of philosophical analysis to the greatest advantage. Berkeley's 'Esse ist percipi' was itself a result of careful analysis of a commonsense belief in the existence of things of the world like chairs, tables, mountains, etc. Analysis used in this constructive way will aid us in "replacing a vague belief by a clear and analysed one, and a mere instinctive belief by one that has passed through the fire of criticism" (Broad in "Scientific Thought"). Critical philosophy is nothing but this. The most fundamental task of philosophy, in Broad's view, "is to take the concepts that we daily use in common life and science, to analyse them, and thus to determine their precise meanings and their mutual relations".

Whatever be the faults of the Rationalists and Empiricists with respect to their use of Philosophical Analysis, one could not question the legitimacy or the genuineness with which they pursued the method. They had no doubt given it an exaggerated importance not realising its limitations when applied to metaphysical problems. The result was that it led the Rationalists like Hegel to Logical Formalism and Empiricists like Hume to Absolute Scepticism. In neither case, however, the philosophers overlooked the real metaphysical problems. They were in a true sense philosophising.

It is entirely a different story when we turn to the philosophy of the present-day. Philosophy is obviously in trouble now, and

philosophers are certainly passing through one of the darkest periods in the history of human knowledge. The time has come when philosophers the world over should pause for a while and ask themselves whether they are really sincere in their philosophising. If they are, I am sure, there would not have been any room for complaint. But turn to Russell's remarks. He says that philosophy has been reduced to triviality. 423

There are many philosophers nowadays who would, in the name and under the shelter of philosophical analysis, reduce philosophy to a purely 'Verbal' affair. Reality for them does not enter into the picture at all. Truth for them is merely syntactical. Assertions could be compared with assertions, not with experiences; and we can never compare reality with propositions. These philosophers go by the name of "Logical Positivists". They deny that an empirical proposition can be justified by conformity to fact; they assert that it could only be justified by conformity to syntactical rules. Russell, commenting on these thinkers, considers it incredible that there could be philosophers who would deny that "an empirical proposition must owe whatever claim to truth it deserves to some relation to one or more facts"; he adds, "the nature of the relation may be difficult to define but that some relation is involved can only be denied by those who have got themselves so befogged in Philosophy that they have forgotten even what is completely evident".

The question that now faces the philosophers and requires urgent answer is regarding the subject-matter of philosophy itself. Is the philosopher's primary concern with words and their meanings, or with things and their properties? If the former, then God help philosophy! If the latter, then all discussions on language and its analysis should only be incidental to a further and a more important enquiry about things and their properties, and not ends in themselves. After all, no philosopher, and for the matter of that no scientist or anyone in any field of knowledge, could afford to dispense with words, because they are the media through which anything that is 'analysed', philosophically, scientifically or even otherwise, could naturally be expressed. But the real task of a philosopher is not to make a fetish of language trying to discover and then revel in all the possibilities of precision and clarity of expression, but move further and explain the world of 'things', and also the world of 'spirit', if there is one. Philosophy has deserted its age-old problems precisely because philosophers no

longer consider analysis as a method and a means, but an end in itself. If philosophy is at all to survive and regain its lost prestige, philosophers must begin 'de novo', and revise, if not reconstruct, their premises. They must thoroughly mind their problems, cultivate proper attitudes and make the right approaches. The method they should use is naturally the only method which any sensible philosopher would use, namely analysis, but the less they make a fetish of it, the better.

Pythagoras

by

N. A. NIKAM

During my visit to Greece in April 1954, among many things which I learnt was my acquaintance with the research on Pythagoras that was being carried on by the Pythagoras Society. I have with me in my possession a book called *Pythagoran*, privately printed, which was sent to me as a gift by its Editor, Mr. Hobart Huson of Texas, U.S.A. In the course of his researches on the biography of Pythagoras, on which Mr. Hobart Huson is engaged since the last thirty years, Mr. Huson brought together the moral and religious teachings of Pythagoras from Greek, Latin, English, French, German and Italian sources, and has reconstructed and interpreted the teachings of Pythagoras in the *Pythagoran*.

Pythagoras was a pure-blooded Greek and was born on the island of Samos about 589 B.C. Pythagoras travelled in many lands in search of learning and wisdom. He settled at Krotona in southern Italy, where he attracted many brilliant minds of the age as his disciples. He married his pupil Theano and had by her seven children. His apostasy from the orthodox religious beliefs brought charges of impiety against him and led to his expulsion from Krotona and the suppression of his schools in 510 B.C. Pythagoras died at Metapontum in Italy 490 B.C. *circa*. His criticisms of theology were directed against the then prevailing Olympian, Orphic and other pagan religions which had many tenets in common with Christianity. Whether Pythagoras wrote anything is a matter of controversy, but Diogenes Learites declares that he did, and among them names The Sacred Discourse. Although hundreds of works regarding him and the Pythagoreans existed prior to the fourth century A.D., practically none now exist: the early Christian Church made a deliberate effort to systematically destroy all references to them. While Burnet thinks that Pythagoras believed in and taught the doctrine of rebirth and transmigration, Mr. Hobart Huson thinks that he did not. The *Pythagoran* deletes therefore all references to this doctrine.

It is not merely the doctrines of Number and Harmony, but many major categories of Greek Philosophy would appear to be Pythagorean: the doctrine, 'Know Thyself', that philosophy is a 'way of life', that there is a perennial philosophy and wisdom, that although this is an open secret yet it cannot be taught to all. "Not unto all should all be made clear". "Know God, Know Thyself". "Though it seems easy to know thyself, this is the most difficult of all things. Its message is, in any event, to discover our own power. This amounts to learning the nature of the whole extant world which, as God advises us, is impossible without philosophy". If Aristotle says that Philosophy arises out of wonder, Pythagoras says that "it is through philosophy that one comes to be surprised at nothing". Pythagoras recognises Intuition: "God endowed man with Reason that he might use it and discern the true from the false. Instinct and Intuition were before Reason".

The Limit and the Unlimited:—Pythagoras posits the Unlimited; the Unlimited is prior to the Limited. The Unlimited is the Formless; what is Formless is also ageless. Between the Unlimited and the Limit or Form is a process of energy which is a process of Evolution. Evolution is the process by which the Unlimited and the Formless acquires form.

What is the Unlimited? It is not God. The Unlimited is that which is potentially capable of Form; it is that which receives and becomes Form. Both the Unlimited and Form are therefore areas of change. Form is the actuality of the Unlimited; it is the ever-changing. The Unlimited is the ever-lasting possibility of a change which is never constant. As such, both the Unlimited and Form are comprehended by Time. Pythagoras says: "With the appearance of Form also began Time". Form is the condition of change, of multiplicity; everything takes on Form in proportion, therefore, of Number or Measure. "The various forms assumed, retained, and changed are wholly matters of degree, relativity and proportion". It is evolution and not mere change, because it involves measure and proportion. Limit and the Unlimited are in a sense opposed, as for instance solid and liquid, but are in another sense, of the same substratum. "There is but a single cosmic substance" says Pythagoras, "of which all things have been formed. So that all forms whatever they may be or have been, or whenever they have been or may be, have been, one, and will be but multiple or varied forms of one and the same single substance".

What is Form? It is the essence or the principle of essence. The Form Horse is essence or a Universal. The Universal as Form is also the "limiting" principle, as it imposes on the process of natural evolution the Form of a horse. Form is Complex: it is a conditioning which is a Universal-Particular. In one sense, Form is outside the Unlimited; in another sense, it is in the Unlimited, and the cause of Form is Form itself. (Compare *Sva-rupa Sambhanda*). Pythagoras does not restrict his philosophy to only two categories,—the Unlimited or the Substratum and the Limit or Form; there are three major categories: God, Substratum and the Limit or Form. Why? Because, as Pythagoras says, "Neither can substance alone participate in Form by itself; nor can Form by itself apply itself to Substance. There must therefore exist another cause or divine energy, which moves the substance of things and forms of them. This cause is primary and the most excellent of all".

The Universe is a process of change, "so that at no time and at no place along its turbulent course it is the same river which it was in the beginning"; and Pythagoras says, along with Heraclitus: "It is impossible even to step into the same river twice".

From this Metaphysics is deduced a sense of hope and fearlessness as a practical maxim of Life: "So why then, should man fear one death when he has already died and will die, so many".

I have expounded and interpreted the First and the Second chapters of the *Pythagorean*. In the conception of the Unlimited there are broad resemblances to the conception of *Prakriti* of the *Sāṃkhya*.

In the conception of Form as the limiting and diversifying principle or energy which is the cause of creation or evolution, there may be discovered at least some distant resemblance to the conception of *Maya* in the *Vedānta*.

I shall quote one passage from the *Pythagorean* on what Pythagoras said on Cosmic Law, which, in its broad outlines, corresponds to the conception of *Karma*.

Cosmic Law has the peculiarity, that it is not dependent upon any other source of power for enforcement.

It is at once a legislator, inspector, magistrate and executioner, being omnipotent.

Divine justice is strictly compensatory and is never vindictive.

It is compensatory because it rewards adherence as well as punishes infraction.

It is non-vindictive because it is dispassionate, and the elements of wrath and vengeance are absent from it.

It is no respecter of persons or excuses: all are equal within its compass.

Every infraction of Cosmic Law is inevitably noticed and visited, irrespective of knowledge, or ignorance, motive or intent, mode or manner.

It is the eternal principle of divine justice that initiation of commensurate consequence inheres in every condition.

And that the condition is infallibly compensated, with peculiar appropriateness and in finite degree.

And that during present existence.

The eternal regimen of the Universe is Harmony, Order, Equality, Balance.

Which is perpetually maintained by Cosmic Law.

The Pythagorean also contains some Pythagorean Enigmas: e.g. "Do not cross over a broom": "That is, do not put obstacles in your own way or go not of your way to stir up troubles". "Put on your right shoe first, but wash your left foot first": i.e. "Before admonishing others, first put your own house in order. Act uprightly and honestly, washing away all impurities. Prefer an active life to one of ease and pleasure".

I left Athens with a very strong conviction that at the time when Pythagoras lived and five hundred years later, there was either a real impact of Indian thought on the philosophies of Asia Minor or there were real affinities of thought in their independent approaches to the problems of life. Also, I felt that the Philosophies of Asia Minor were very inadequately and perhaps wrongly interpreted by European Scholars due to their own prejudices. Therefore there is here a very interesting field of research and study for Indian Scholars for comparative studies in Sanskrit and Greek.

Principle of Non-contradiction

by

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1. Reason is employed mainly in distinguishing the means of cognition and their corresponding objects. While the means of cognition is directed to determining the nature of truth and the truth about the objects, reason operates in determining which means of cognition is proper to a given occasion. And a means of cognition which is grounded in reason is competent enough to ascertain and judge the facts of experience.¹ But reason is essentially dialectical, amphibious, in character. It can be employed to prove two mutually exclusive conclusions, as long as it is a reason that does not originate from an existent experience. Such a dialectical principle called reason is itself dialectical or self-contradictory; and this very truth is established by a reason grounded in experience.²

Reason is that principle which enables us to distinguish the possibility from the impossibility of the truth conveyed by a means of cognition and the object to which it is directed.³ The function of reason is to establish the nature of the hitherto unperceived on the basis of the perceived. In so doing it proceeds on the lines indicated by actual experience.⁴ Within certain limits reason or dialectic may be employed to achieve valid results. But this dialectical instrument fails when it is employed to give us a knowledge of the ultimate or final cause.⁵ After all it only co-operates with the various valid means of cognition and it is a necessary element in all the means.⁶ Reason employed for its own sake is of no avail. It should be well grounded if it is to give rise to valid knowledge. Reason has to function within the framework

1. NVTT. 60. 16 ff.

2. VSB. 448. 13-19; Bhāmati 449. 3-4.

3. PP. 39. 16-17.

4. VSB. 441. 1.

5. Bhāmati 449. 3-4.

6. PPV. 101. 21-23.

of experience; and this implies it should be grounded in higher immediacy.⁷

The reasoning activity is directed to an understanding of the world of experience and an analysis of the facts. In analysing, it dichotomises. When reason grasps an object as a table, it at the same time distinguishes it from that which is not a table. In other words, reason functions effectively through the operation of the principle of contradiction.

2. Two mutually exclusive ideas contradict one another when they claim to refer to the same real entity in the same manner.⁸ To predicate two or more essential characters of one entity is also an instance of contradiction.⁹ In other words, it is the awareness of a non-existent as having a determinate existence.¹⁰ Contradiction then implies otherness; and the two are based on negation. The different and the contrary cannot be understood as long as we do not comprehend the similar. Otherness and opposition are understood as representing the negation of the similar. While negation directly expresses the absence of the similar, otherness and opposition reveal it indirectly.¹¹

The primary form of the law of non-contradiction is that an entity cannot be itself and also something else.¹² But we have the cowness and the specific cow apprehended in one and the same cognition. How can an entity be a cow and yet reveal the cowness? The cowness being a repeatable character, two cows are distinct as two and yet identical or similar as revealing the same cowness. This objection can be answered by pointing out that the difference here is one of form, of spatial location. The cow does not have two properties or characters called cow and cowness. The two together constitute one unity. When we speak of determinate or specific entities, on the other hand, we refer to two or more actually existing objects. Each is distinct from the other. X and Y maintain their respective identities only when they exclude one another. When we speak of them as entities forbidden to be one thing, we are appealing to the law of contradiction.¹³ When

7. VSB. 445. 1-2.

8. B. 688. 7-8.

9. VSB. 711. 18.

10. TP. 79. 14.

11. NBT. 25. 8-12.

12. VSB. 708. 2-3. See Bosanquet: *Logic*, I. 295 ff. II. 212-3.

13. VSB. 708. 15; NBT. 75. 9-10; TS. and TSP. 493.

we say that A cannot have both p and $\text{no-}p$, we are evidently referring to a self-contradiction involved in the joint predication of two exclusive predicates. The ground of the two predicates is one and the same object, and they do not necessarily establish the reality of two different objects. By claiming a reference to an identical object, the two predicates imply a denial or negation of their difference.¹⁴ Contradiction then involves two mutually exclusive characters.¹⁵

Contradiction as a fact involves the opposition of existence to non-existence; as a logical principle it implies the incompatibility of the affirmation and the negation of one and the same fact or entity. It is a bilateral or reciprocal relation.¹⁶ As reciprocal it is equivalent to the law of the excluded middle which excludes a third.¹⁷

3. It is not possible that one and the same determinate entity can have at the same time such contrary attributes as existence and non-existence.¹⁸ We cannot find non-existence in the attribute called existence, nor can we find existence in non-existence.¹⁹ Likewise if x is produced by a totality of conditions p and endures, but disappears at once when y approaches, then x and y have a real opposition. They do not have contiguous co-existence. Thus cold is opposed to hot.²⁰ Let us consider this example closely. In the first moment there is the approach of heat, in the second moment the heat incapacitates its opposite, and in the third moment we have the disappearance of the cold and the pervasion of the heat over that place.²¹ In such a procedure we do find a transition, a moment when the two opposed characters have co-existence. If there can be a co-existence of the opposed, how can they be the contradictories of one another? If the real or dynamical opposition admits this transition, the logical contradiction cannot refuse to admit this transition;²² for, as Dharmottara explicitly

14. TP. 211. 3-4.

15. NBT. 4-6.

16. TSP. 1 and 486.

17. TSP. 390.

18. VSB. 561. 2.

19. VSB. 562. 17-19.

20. NB. III. 101. 3; NBT. 72. 3-14.

21. NBT. 72. 14-17, 73. 4-5.

22. Stcherbatsky (*Buddhist Logic*, I. 407), however, denies this transition for the latter.

declares, the law of contradiction, like that of causation, refers only to sensibilia.²³

Contradiction implies otherness, difference, or exclusion. The law of contradiction in essence refers to the characters predicated. It is the law of contradictory predication, which is comprehended as efficient opposition or incompatible co-existence, as logical antiphrasis, as the law of otherness, and as the law of the excluded middle. The presence of contradictory qualities implies the presence of contradictory entities having those qualities. If *x* is said to have two contradictory qualities, then it is not one but two things, since the possession of such qualities implies the existence of two different entities having these qualities. As Dharmottara put it, an object becomes other when it is united with a contradictory quality. Such contradictory qualities involve difference in space, time and sensible qualities.²⁴ Difference is a relational concept; and contradiction always presupposes a relational universe.

4. Contradiction involves a complete mutual exclusion.²⁵ When there is a determinate patch of blue here, it necessarily excludes the not-blue which represents the rejection of the identity of the blue. If there is no such exclusion, the blue cannot be the object for a cognition. Thus the existence of the blue excludes its non-existence which is its contradictory. That is, it excludes the negation of its own self. This negation may be represented by the determinate existence of something else. Then any pair of definite objects may have a relation of indirect contradiction, since one is always included in the non-existence of the other. Contradiction thus implies the distinct form of an entity.²⁶ One distinct form excludes another. Even the non-existence of an object has the definite shape of the repudiation of a real object whose presence is imagined. Such a contradiction is based on the character of the object which excludes; and consequently this may be called the essential or fundamental contradiction. It is fundamental in so far as it keeps every entity distinct from every other.²⁷ Thus the basic law of contradiction is that an entity cannot both be and not be.²⁸ It is a law of limit.

23. NBT. 43. 7-9.

24. NBT. 5. 2-3. cf. Johnson, I. 31.

25. NB. III. 104.

26. NBT. 74. 4-15; VVN. 184. 16 ff. cf. Sigwart, I. 184-5; Bergson: *Creative Evolution*, 317; Bosanquet: *Logic*, I. 305.

27. NBT. 74. 18-75. 3.

28. NBT. 83. 2.

5. The Vaiśeṣika takes contradiction to be a real relation of opposition bordering on causation.²⁹ In the Nyāya system it is mostly a logical fallacy only. Jayanta bases his theory of contradiction on the impenetrability of matter, because the phenomena that contradict one another must have duration. But to the Buddhist all that is required is only a temporal duration, not a spatial extension, since that which has a temporal duration is in itself an existent.³⁰ The contradiction between light and darkness involves essentially the time factor. As light advances, darkness gets dispelled. But this is an opposition not between mutually exclusive entities, but between contraries, as the Mādhyamika and Advaita argue. Even this opposition is not ultimately tenable.

When we deny the co-existence of two contradictory phenomena we are admitting that they are related. But a relation needs the co-presence of the related. When the presence of light contradicts and therefore removes the presence of darkness, we have only one entity; and this cannot have a relation with an absent entity called darkness. When we say that light and darkness contradict one another, this contradiction arises from the fact that we do not apprehend the two as co-existing. Two entities are mutually contradictory only if, of two cognizable entities, one is present or effective when the other ceases to be present or effective.³¹

6. When we relate two different facts, we may arrive at the causal relation or contradiction. And when we speak of the relation between two different concepts, we arrive at the relation of identity. This identity is referred to by Vācaspati as the law of the consecrated recognition.³² Though the Buddhist makes much use of the relation of identity in his theory of inference, he has only the law of identical construction, since his basic point-instants always exclude one another.³³ While the Sāṅkhya law of identity equates the cause and the effect, the Buddhist law refers different concepts to an identical existent. Since the concepts are projected as external objects, the Buddhist brings forth a new law called the law of conformity, according to which the subject is related to the general predicate in terms of a similarity. The Vedāntic law

29. VSK. 3. 1. 10-12.

30. NBT. 73. 5-11.

31. See NB. III. 106; NBT. 76. 3-6.

32. VVN. 125. 8.

33. cf. Sigwart, I. 84; Bradley: *Logic*, 142.

of identity is similar to the principle of recognition, which implies that an entity thought at different times, or seen in different places, or viewed under different conditions, is one and the same. It is an entity referring to two moments or two places, and as such it is relational endeavouring to be non-relational. This law of identity transcends relations. It can be expressed in three ways.

x is of the same nature as y ;

x has the sameness of being with y ;

x is just y .

The second represents essential identity, while the other two admit degrees of identity. These degrees imply that it is not identity but similarity which is asserted in them.³⁴ The essential identity is real in so far as it expresses or embodies a pervading unity.

The so-called law of contradiction appears as a subform of the law of otherness. It is grounded in the concept of difference; and difference itself is implied by identity. Otherness, difference and such other concepts may have a place only in a relational context. Even then they are self-contradictory.

The law of otherness is a principle explaining the exclusion of an entity by another. But when every entity is dependent on every other, it has no nature of its own. In the absence of its own nature, x is no longer x . Curd has a dependent origination, and its character is represented by milk. Apart from its dependence on milk, there is no emergence of curd. As dependent, it is not self-subsistent.³⁵ When it is not an independent existent, there can be no other in relation to the curd.³⁶ And if an entity has its own nature, it is an independent existent. As independent, it can have no relation with any; and then there is no other to it.³⁷ If x is dependent on y , this y is not external to x ; and if it is independent, it has no other called y .

Every entity as apprehended claims existence or reality; and in so far as it has only a dependent existence, it has no substantiality or reality. Consequently we cannot say either that it is or that it is not.³⁸ We cannot say that it is "both is and is not", nor

34. cf. Sigwart, I. 85.

35. MMK. 15. 1.

36. MMK. 13. 4, 15. 3.

37. MMK. 15. 2.

38. MMK. 15. 7; MMV. 96-97.

can we say that it is 'neither is nor is not'.³⁹ We are thus compelled to reject the validity of the law of the excluded middle.

7. There are then two basic forms of contradiction according to the Buddhist. One rejects the co-existence of the incompatibles, and the other excludes the non-identical.⁴⁰ A contradiction, however, may falsify an identity, but not the co-existence of the contradicted.⁴¹ I can predicate two simultaneous activities to a single x , if these activities have different origins. Thus ' x goes singing'. These two are not identical activities, but they co-exist. Two mutually exclusive predicates can also be referred to the same subject if they appear at different times like youth and old age.⁴² Such properties of the same substratum differ, as Dinnāga said, only by the extent of exclusion which they effect, but they are partly identical.⁴³ Still the absolutely exclusive characters of existence and non-existence can coexist. Given two different spaces s and t , we can say that x exists in s and that x does not exist in t . Even in the same space, x exists in s with the character c , and x does not exist in s with the character d .⁴⁴

8. This leads us to consider contradiction in relation to disjunction. Praśāstapāda treats doubt, error, indecisive knowledge and dream cognition as forms of non-knowledge.⁴⁵ We find similar features in two or more entities; and the perception of one of them brings forth the memory of another thing or things. Then the state of the mind that is not able to judge the object of apprehension definitely is one of doubt. It moves from one alternative to another. This mood of doubting is taken to be an invalid cognition,⁴⁶ though we are told that conjecture and indefinite cognitions are only forms of doubt.⁴⁷

If in the inferential cognition we take up a middle term which is not specific, it is certain to give rise to doubt. The mere having of a pair of horns does not, for instance, make an animal a cow. But if such a property is loosely accepted as a middle term, it can

39. MMK. 22. 11; MMV. 160.

40. See AAA. 331-2; MBT. 75. 11-13. cf. Sigwart, I. 178.

41. NBT. 75. 10-11.

42. PP. 29. 18-20.

43. PS. V. 28.

44. KKK. 685. 19-686. 3; TP. 210. 8-10.

45. PB. 172. See NL. 409.

46. SSP. Section 32. -

47. SSP. Section 37.

lead to alternate conclusions. It is also true that we cannot have a doubt regarding fictions. We can doubt only the possible or the probable. We cannot doubt the reality or validity of an uncommon and hitherto unapprehended entity. If at all a doubt arises with reference to the uncommon, the doubting actually refers to its contradictory.⁴⁸

Doubt can arise in a perceptual cognition where we perceive clearly only a few similarities, ignoring the specific differences between the objects.⁴⁹ All doubt is based on a positive apprehension. If I saw *x* yesterday, now in recollecting I can doubt certain facts I remember to have seen vaguely. If I do not remember any, the very basis of doubt is removed. Here doubting implies a specific act of recollection.⁵⁰ When many properties can be predicated of one entity, we cannot be certain of the specific property that the thing can admit. The many contending properties cannot provide exhaustive alternatives; and consequently the doubt can never be resolved. Hence Udyotakara takes the *māny* to mean different.⁵¹ The judgment which expresses the operation of doubt does not define reality, but expresses various alternatives, because it admits that the nature of the real is unknown.⁵² But when these properties are mutually exclusive, we know that only one of them is true. And the state of mind which does not know which is true is one of doubt. Mutual exclusion precludes their co-existence.⁵³ But it is also quite likely that these exclusive alternatives may be doubted.⁵⁴ Then a judgment of supposition would fail to exhibit the necessity of fact or of thought. If this is not true, then a disjunctive judgment would have to contain an alternative which we already know to be true; and then there is no need for a disjunction.

Different opinions about the same entity or event, absence of any discrimination between different qualities or relations and the like, give rise to doubt and through doubt to disjunctive propositions.⁵⁵ But this disjunction is only a character of our un-

48. See NVTT. 256. 20-257. 8.

49. NBV. 45. 5-10.

50. NVTT. 165. 13-23.

51. NV. 92. 10-13.

52. cf. Bosanquet: *Logic*, I. 267.

53. NBV. 45. 20 ff, 97. 7 ff.

54. KKK. 678. 7-8.

55. NBV. 101. 2-5, 102-104.

certain knowledge, not the nature of the real entity.⁵⁶ The perceived pillar does not admit the disjunction of pillar or man; for the disjunction is between any two possible interpretations or judgments of the fact.⁵⁷ At times, even when there is neither a pillar nor a man, I can see something else and doubt whether it is a pillar or a man.⁵⁸ This problematic reasoning does refer to an existent.⁵⁹

When similar properties or qualities, many qualities, or contrary qualities, arise regarding the same entity we have doubt. The possibility of predicating similar qualities is based on a lack of understanding of the nature of the object. The proper understanding of the nature of an object involves not only our knowledge that the object is identical with itself, but also the knowledge that it is different from others. Through exclusion we understand it. The source of doubt is a similarity that is not grounded in exclusion.⁶⁰ The apprehension of similarity, the non-apprehension of difference, and the consequent lack of discrimination operate in the process of doubting.⁶¹ The content of a doubt, however, is not the given fact, but an idea that we construct. It is an idea that is selected or fabricated arbitrarily and it admits alternatives.⁶²

If we know the number of alternatives, even if we do not know which alternative fits into the given case, we cannot have a doubt involving a totally new alternative. Thus, if there are only six possible tastes, we cannot speculate about the possibility of a seventh.⁶³ When the alternatives are many we have literally a confused state of mind. Doubt, on the contrary, appears to involve two contradictory or mutually exclusive ideas, of which only one is suspect.⁶⁴ Contradiction thus is grounded in disjunction.⁶⁵ If there is a contradiction, there is necessarily doubt which is its ground, because the former cannot exist apart from the latter.⁶⁶ That which cannot be doubted and cannot have a

56. B. 435. 4.

57. B. 579. 3.

58. TP. 225. 8.

59. But see NB. II. 61-62.

60. NV. 89. 10-19.

61. NVTT. 245. 20-22.

62. cf. Bosanquet: *Logic*, I. 265-6.

63. NVTT. 246. 9-11.

64. NVTT. 257. 9-10; PTN. 70. 1-3.

65. KKK. 369.

66. KKK. 370. 1-2.

value, is never an object of an enquiry. We cannot debate about the existence of a clearly visible jar, nor can we enquire into the nature of the organisms on the other side of the moon.⁶⁷ That is, the alternatives suggested by doubting should be mutually exclusive; and then there is no doubt, since one of the alternatives is necessarily true, though we may not know which one is true.

A perceptual judgment can therefore be validly asserted if it is free from doubt. A formal inference, however, need not presuppose a prior doubt.⁶⁸ Doubt has a part in our experiences. It is the basis of disjunctive and hypothetical judgments. But what is the nature of doubt? This question cannot easily be solved. On the contrary, we may even be led to conclude that there cannot be any doubting in the strict sense of the term.

An idea or knowledge that gives rise to an enquiry or investigation may be said to be the nature of doubt.⁶⁹ That is, x is doubted because we do not have a definite or ascertained knowledge of x . But what is a definite knowledge. If we define it as that which cannot be doubted, we argue in a circle. Suppose I see something dimly and I have a vague idea. It is not a definite knowledge, nor do I have any doubt about it. What kind of knowledge is it? It involves neither a hypothesis, nor a disjunction, nor a certitude. A mere lack of certainty cannot therefore be the essence of doubt.⁷⁰ Thus one may not be very eager to know the colour of a given piece of cloth; and yet he may have a doubt regarding the colour.⁷¹ The supposition, however, affirms something within reality. It is a supposition based on facts. It has a ground which is known and which is indicated in the judgment. We doubt that about which we are not very clear.⁷² We cannot have a doubt if we do not already have a vague predisposition to believe one thing or other about the object.⁷³ That is, we do not suppose the consequent, but only the antecedent.⁷⁴ Thus we can say that 'if x is a man, then x is mortal'. The contradiction that arises out of this disjunctive hypothesis can issue only from an ascertained certainty.

67. B. 5. 1-2.

68. NM. I. 10. 16 ff.

69. VU. 77. 2-3.

70. cf. TP. 222. 12-223. 4.

71. TP. 223. 9-10.

72. B. 435. 4.

73. TP. 223. 6-9.

74. cf. Bosanquet: *Logic*, I. 272.

What are we then to say of a judgment like: 'Whenever I am greatly pleased, I have also a feeling of pain.' I am predicating two mutually exclusive states to myself. Let us have a more profitable example. 'Number is odd or even; Zero is a number, and it is odd or even'. But Zero can as well be both. Here is a disjunction that rejects the validity of the law of the excluded middle.

9. When two entities have no conceivable relation to one another, we cannot take the one to exclude the other. Disjunction needs some sort of relation between the two.⁷⁵ The two alternatives it expresses are really hypotheticals which fall within a unity.⁷⁶ As long as they are conditional propositions, they can be the contradictories or contraries of one another, only in so far as the complexes to which they belong are not mutually related. Disjunction expresses mutually exclusive possibilities, while the hypothetical statement offers a simple necessity between two possibilities.⁷⁷ In the latter, the predicate is a necessary consequence of a possibility affirmed as the ground tentatively. But a contradiction would then have to be credited with the power of transforming a possibility into a certainty. In such a case, every assertion should be grounded in a contradiction.

10. Does contradiction need only two values for any statement? If a certain mathematical proposition is true, it does not mean that its contradictory is false. Consider the statement: 'There is a prime number of the form $x^4 + 1$ '. This is neither true nor false as long as we do not know the constructions for verifying it.⁷⁸ The very possibility of such a construction, according to Brouwer, presupposes an intuition (*Anschauung*). This verification can be possible only with regard to finite aggregates. As Kurt Gudel showed,⁷⁹ the problem of determining in a limited number of steps whether a certain proposition can be demonstrated or refuted, can be solved only for the simpler deductive systems. Most deductive systems are incomplete. The verifiable, however,

75. B. 579. 2.

76. cf. Bosanquet: *Logic*, I. 332.

77. See Sigwart, I. 212.

78. See Max Black: *Nature of Mathematics*, 200: cf. L. E. J. Brouwer: *Intuitionism and Formalism* (*Bulletin of American Mathematical Society*, 20, 1913).

79. *Monatshefte für Math. Und. Phy.*, 1931. See 'On Undecidable Propositions' (*princeton*, 1934); Max Black: *Nature of Mathematics*, 167-8.

includes all valid possibilities. But a proposition is true not because we can verify it, but it is verifiable because it is true. Verifiability is only a possibility; and this implies that any given proposition can be neither true nor false, because it can have a possible third or fourth or fifth value.

A non-sensical sentence like 'procrastination drinks quadruplicity' is neither true nor false.⁸⁰ These two values are the only values which the law of the excluded middle can recognise. But statements about the virtuous or non-virtuous triangles cannot be either true or false.⁸¹ The law of the excluded middle cannot also apply to such contraries like white or black. A given patch need not be white or black; it can be red. The statements that attribute spatio-temporal coordinates to electrons are neither true nor false. They are indeterminate.⁸² Sometimes they may not be ascertainable; and at other times they may claim truth, though they cease to be true outside a given experience.

When it is said that 'A must be either A or not-A', we have only an abstract 'either-or'. But what exists is a concrete something, 'with difference and opposition in itself'⁸³; and the 'either-or' can be valid only when the consequent negation expresses or implies a positive something.⁸⁴ Even then the negation of the snake now does not falsify the reality or truth of the snake apprehended earlier. The negation can only refer to the present, not to the past or the future.

Moreover, the statement that 'it is false that p is false' is not equivalent to the statement that 'p is true'.⁸⁵ Likewise the negation of 'not-p' is not the same as the assertion of p, though not-not-p can be the same as p. In such cases we do not have a mere *tertium non datur*, but a *quartum non datur*.⁸⁶ We can

80. See Russell: *Meaning and Truth*, 173.

81. See Cohen and Nagel: *An Introduction to Logic and Scientific Method*, 184-5.

82. See Hans Reichenbach: *The Philosophic Foundations of Quantum Mechanics* (University of California, 1946).

83. See Hegel: *Logic* (Wallace), Section 119.

84. cf. Bosanquet: *Logic*, II. 213-215; Blanchard: *Nature of Thought*, II. 328-9.

85. See Russell: *Meaning and Truth*, 276.

86. See Emil Post in *American Journal of Mathematics*, 43 (1921); Łukasiewicz and Tarski: *Comptes-Rendus des séances, etc., Warsaw* (1930), Vol. 23 Class iii, Pages 1-21, 51-77.

then have at least four values for any proposition. This can be expressed thus:

- i. The word is eternal, is not eternal, is both, and is not both.
- ii. The Absolute is existence, is not existence, is both, and is not both.
- iii. The soul is different from the body, is not different, is both, and is not both.

In this way four possible statements can be made of any given; and all these presuppose at least a four-valued logic.⁸⁷ This set of four values is forced on us in our examination of the erroneous apprehension.

Consider the statement 'x is false only under the condition that p is false'. This can be represented as 'only if p, then x'. This proposition is neither true nor false. It is a partial negation. Likewise there can be a partial affirmation. Here we find that between true and false there can be an infinite number of values which point to a multi-valued logic. Thus 'nothing but the truth', 'not entirely true', 'half-truth', 'completely false', 'less incorrect', 'would be true to say', 'nearly true', 'far from true', 'not quite

87. See MMK. 22. 12; MMV. 161; LS. 122.

B.—Bhāmati.

KKK.—Khaṇḍanakhāṇḍakhāḍya.

MMK.—Mādhyamika Kārikā.

NB.—Nyāya Bindu.

NBT.—Nyāya Bindu Tīkā.

NV.—Nyāya Vārtika.

NVTT.—Tātparyā Tīkā.

PB.—Prasastapāda.

PP.—Pancapādikā.

PPV.—Vivaraṇam.

PS.—Pramāṇa Sammuccaya.

NL.—Nyāyalīlāvati.

NM.—Nyāya Manjari.

SSP.—Saptapadārthi.

TP.—Tattvapradīpikā.

TSP.—Tattva Sangraha Panjikā.

VSB.—Śankara's Bhāṣya on Vedānta Sūtras.

VSK.—Vaiśeṣika Sūtras.

VVN.—Nyāya Kanikā.

VU.—Vaiśeṣika Uparkāra.

true", 'out of the question' and similar expressions indicate that true and false are not the only values which a proposition can admit. And this points to a rejection of the law of the excluded middle. At the same time it shows that a proposition or fact can appear in the world of finite experience even if it is self-contradictory. It is such a self-contradictory fact that appears as the object in the erroneous cognition; and it is then called an appearance.

Science and Epistemology

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1. We propose here to enquire into the epistemological pre-suppositions of science. The view we shall be presenting is the following. Science adopts a realistic theory of knowledge as an implicit creed underlying its actual practice or methodology, but changes over to an idealistic and sceptical theory as it reflects upon the matter in its own way. This sophisticated attitude to knowledge conflicts with the practice of science, and the only way out for science from this awkward situation is to recognise the narrow and dogmatic character of its *own way* of epistemological reflection. This way is marked by the verificatory theory of meaning which may well hold in science but not in philosophy. In other words, the scientific objects may be required to be empirically verifiable but not the philosophical ones that are presupposed by the former.

2. Let us then examine the practice of science first to bring out its implicit epistemological faith. Now we know science starts with perception and it implicitly identifies the perceptual contents or data with the existent objects, which are thus held to be perceived as they are. The objects enter the mind, so to say, and of course, they are perceptible and usable by right. So that perception is taken as an ultimate fact and so are perceptual truth and existence. This is realism and the faith implicit in common-sense also, which, in fact, has handed down this faith to science, its child, though more refined and progressive. Now science unreflectively holds that objects exist out there and they are perceived by the scientist truly. Yet errors have to be admitted. But they do not perturb science greatly or shake it out of its cosy realism when it is in its unconscious and practical mood in which it treats them as sheer accidents or wild data requiring no explanation. They do not rouse the practising scientist from his 'dogmatic slumber' and lead him to a wakeful reality of subjective

idealism. Confronted by errors he takes up the following attitude. Truth is the general law of perception and error is exceptional. Reality is coherent and so an error is to be detected by its incoherence with the general body of knowledge. To minimise errors we have to be careful in our observation. In the case of measurements we should repeat them where possible and take their average. This is because errors are accidental, and as we do not know why we perceive truly, we cannot also know why we some times err. So we cannot have a rational and fool-proof method to avoid errors. The method of averages will help us to minimise error. Thus science manages its errors, keeping itself within the fold of a realistic faith. It only adds a few more items in its working faith.

3. Let us now see what happens when science gives up the unconscious and practical attitude of commonsense and reflects upon perception, truth and existence. With regard to perception it gives up the faith that the content of perception is identical with the object, for the latter is never perceived apart from the former. The content is perceived; an extra-mental object beyond it is merely supposed. The latter cannot be inferred from the former, for the obvious reason that their concomitance has not been established through prior perception of them. Inference can establish only an object perceived before and found connected with another object from which it is inferred. Thus science, following a strictly empirical theory of meaning, will reject the object of perception as a meaningless term. (Of course it will deny theoretical meaning to the term and not poetical or emotive meanings). If, however, a perceptible cause of the content of perception be supposed to be there, such as atoms or waves, outside the perceiver's body, acting upon the physiological apparatus inside, this will not help to establish the extra-mental object of perception; for the simple reason that when this cause is perceived in its turn, it will become a content of this second perception requiring another objective cause, thus landing one on to a vicious regress. So that science cannot go beyond the actual content of perception to posit an object and, thus, cannot transcend the immediacy and subjectivity involved in such a knowledge, which is in fact not knowledge proper, but only an appearance of knowledge. The scientist, in his reflective attitude, therefore, has to express his so-called (perceptual) knowledge in the form, "This appears to be so and so", and not as, "This is so and so". He has

to give up the materialistic *object-language* and adopt a phenomenalist *appearance-language* in its place.

Now since science cannot speak of the object of perception and is confined to the content, it cannot also speak of truth and falsity of perception. It, however, does speak of truth and falsity using as the basis of this distinction the principle of coherence as noted before. But this is just a methodological principle for science which it cannot prove in its reflective attitude. For that reality is systematic and coherent and, so, false perceptions are incoherent, is both a psychological and methodological presupposition of science but not a verifiable scientific principle. Science can neither prove nor disprove it, but only believe in it and use it as an operationally *a priori* rule and not a logically necessary principle. For science has only shown that *some* events are inter-related systematically; it cannot speak of *all* events, and its existence is quite compatible with some events being incoherent. Thus science, following its empirical creed, arrives at a rather sceptical position regarding the idea of truth. The coherence theory of truth that it adopts in practice is not supportable by its rational reflection. Moreover, it does not provide a sure test of truth, for one cannot exhaust the verificatory items, the perceptual contents, that have to be examined to see that they do not conflict with the content to be verified. And every such item has to be similarly verified. So that once we give up the simple faith in truth as self-evidential and reflect on error seriously, we cannot stop short of scepticism; the fact of error infects our philosophy of affirmation with doubt and despair. Science in its practical unreflective attitude, treating error as accidental and adopting a coherence test of truth, stops at a half-way house which it has to leave for a sceptical destination as soon as it starts reflecting on error more seriously and systematically. Now it might be imagined that science may find out certain physiological or psychological concomitants of true perception which it may use as the test of truth. But this is vain thought. For, *first*, no such concomitants have been so far discovered by science; *secondly*, the criterion of truth to be used initially by science while it would seek to establish such concomitant relations is itself not sure, as we have noted above; *thirdly*, this antecedent determination of truth of perceptions by the coherence method renders the concomitants worthless as conditions or evidence of truth; and *fourthly*, these concomitants must themselves be truly perceived, thus involving the enquirer into an infinite regress.

With regard to existence too science undergoes the same change of view as it changes from an unreflective to a reflective attitude. In the former attitude, science takes objects to be existing and revealing themselves to man. But with reflection it finds that existence or reality, as distinguished from illusion, is not an empirical character, and so knowable by science. Science cannot directly distinguish by perception between a real chair and an illusory one, for both are ostensibly perceived, and the latter taken for an existent until the error is sublated. The cause of this error is not known to science which, as we noted before, holds truth as normal and error accidental, and there is no rational way for it to tell a true perception from a false one, and so, correct it, except by means of the coherence test which, as we have seen, is neither scientifically sound nor theoretically sure. If we apply the scientific method to the question of existence, the result would be this. Nothing really is known to exist, for we perceive only the contents of our mind and no object beyond them independent of our perceiving. If we adopt the coherence theory of truth, we may say that the more coherent a system of perceptual contents the more will be the probability that their objects exist. So that, since an absolute all-inclusive system is only an ideal, existence is always relative. Thus science, following its empirical theory of meaning, can speak of an existence that has degrees, if it speaks at all. It does not really believe in existence as the latter is ordinarily known. For existence cannot have degrees of probability, it is only our *knowledge* of it that may have these degrees. An object may either exist or not, it cannot have a certain degree of existence.

4. We have so far seen how science, following its empirical theory of meaning, arrives at an idealistic and sceptical position in epistemology. But this is not in keeping with its practice which requires a working realistic faith. What science then is to do about it? We propose that science should examine one of its assumptions, namely, that the postulates of the realistic epistemology, that it adopts implicitly in keeping with its practice, should be verifiable in sense-experience. We have seen how this verifiability principle has been responsible for science to move from a realistic to a sceptical attitude, as it takes thought on the subject. Now certainly the principle is only a prescriptive rule and not itself verifiable. For the statement, "There are no unverifiable object", cannot be verified, because such objects are *ex-hypothesi*

unverifiable. It only prescribes that only verifiable statements be included in science, and this is because science deals with the sensible world to help action, while non-verifiable statements are fruitless in this respect. So that the principle of verification is a mandatory principle of action and is grounded in man's biophysical nature. Therefore it is neither true nor false, and we are at liberty to use another prescriptive principle in our metaphysical enquiries. For metaphysics may be insignificant from a scientific standpoint or from a socio-pragmatic one, but may be significant from another, say, purely theoretic standpoint. Thus instead of the principle of verification we may use the principle of imaginability¹ to prescribe what statements we should include in our metaphysics. We may now reject not the unverifiable but the unimaginable. Thus we may have a meaningful metaphysics or epistemology, though not verifiable. We may, therefore, admit the object existing apart from our perceiving it, and entering the mind as it is in true perceptions, and in an altered form or not at all in false ones. We can imagine the mind as simply and directly cognising the objects and only occasionally adding to them something of its own making, and so distorting them or even projecting images in the void. Thus we can accommodate the simplest epistemological faith behind science in its practice. We can also make room for more sophisticated varieties of this realistic epistemology as their postulates are easily imaginable and, so, meaningful according to our new principle of meaning. So that science need not unnecessarily keep to a narrow principle of meaning which serves it alright, but curbs its style in deciding upon a suitable epistemology. Of course an epistemological theory has to be judged for its truth not in the ordinary manner of a perceptual statement, but by its simplicity and adequacy in accounting for the various features relating to knowledge, such as the felt objectivity and communicability of the objects known, the correlations amongst the objects known by one or many persons, and the fact of unrelated objects or errors and illusions. But the point that we wish to make here is that science can as well formulate its own realistic theory of knowledge in a meaningful manner and treat it as simple and adequate, and so true in this sense, to the extent that it accounts for the knowledge-situation that science comes to face. Without claiming any ultimate vali-

1. As Lewis S. Feuer puts it in his essay "The Paradox of Verifiability" in *Philosophy and Phenomenological Research*, Sept., 1951.

dity for this theory science may hold it as its presupposition without falling into such an awkward position as we noted before, namely, presupposing realism in actual operation but professing subjectivism and scepticism while reflecting upon the matter. This incompatibility between its practice and profession can be got round, if it abandons the verificatory theory of meaning and adopts another mentioned above in its place, which better suits the occasion. For actual science and theorising on science or knowledge in general are not the same things.

Discussion : Time and God

by

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In his recent article "The Temporal and the Eternal",¹ Prof. G. R. Malkani has done much to clarify issues about the ineluctable problem of time, and we are in debt to him for a discerning survey of certain key solutions to the problem of the relation of time to eternity. His treatment is remarkably concise yet nonetheless stimulating, for it brings to a focus one of the issues over which there is some real disagreement between contemporary Eastern and Western philosophical idealists. I wish to single out one problem for discussion from Prof. Malkani's interesting article, the question of the relation of time to God.

At the end of his article, Prof. Malkani concludes: "Looking at history from the point of view of the Absolute Reality, the whole historical process is just an illusion.... Time is real only as long as we erroneously perceive reality, which is essentially eternal The higher standpoint is that time and all that it implies is only an illusion, while reality is out of time and so timeless. Nothing is really gained or lost in time". (18).

At the heart of his presentation is the question of the relation of time to God, or the Absolute. He has ably shown some difficulties in alternate views, but his criticisms of the view that time is real and controlled by a benevolent deity invite certain comments. Prof. Malkani holds that if God is the Eternal, perfect, complete being, then to place Him in the temporal order in *any* sense takes away His completeness and perfection. There is no way in which He can be significantly related to the temporal order without compromising the very essence of His nature. Therefore the temporal order cannot be viewed as real for God.

1. This journal, Vol. XXX, No. 1, (April 1957), pp. 11-18. All parenthesized numbers in this discussion refer to pages in Prof. Malkani's article.

Quite opposed to this position is the so-called Temporalist view which maintains that though God may be understood as eternal, He is in some real way related to the temporal process. Among Western thinkers in the past several decades, this idea has been gaining adherents, especially among such pluralistic idealists as E. S. Brightman, P. A. Bertocci, and A. W. Munk.² Bertocci, for example, writes: "We are forced to talk without meaning when we hold that there is no before and after in God's experience....yet....Whatever changes take place, his essential structure, engaged in these processes does not change".³ Munk concludes that history "must be, in some sense, a manifestation of the ultimate and therefore capable of shedding light on its nature and purpose....also....time must be an attribute of the ultimate".⁴ E. S. Brightman, the leading recent American personal idealist, writes: "The creative purpose of God is the controlling force in the entire process of history, the source of its meaningful novelties, the principle of its movement....Human history, as well as the eternal history which religion envisages, is an enduring time process".⁵ He further speaks of "God's inexhaustible perfectibility".⁶ This is the direct antithesis of Prof. Malkani's view that "progress is never maintained indefinitely, and the whole of time is not progressing to a final goal". (14) For Prof. Malkani, "indefinite progress is no progress". (11) For Brightman, progress is inexhaustible though there are fixed goals, "the teleological constants of history".⁷ It will be interesting to look at the arguments for each of these radically opposed views.

Now Prof. Malkani's argument on time and God moves in this fashion: The beginning of history must have a cause outside history and outside time, but can any such cause explain what occurs in time? One might say that God, who is eternal, is

2. Non-idealistic thinkers such as Bergson, Alexander, Whitehead, Hartshorne, and Boodin have also stressed the reality of time in its relation to God.

3. P. A. Bertocci, *Introduction to the Philosophy of Religion*, (New York: Prentice Hall, 1951), p. 446. See pp. 309-320 and 445 f.

4. A. W. Munk, *History and God*, (New York: Ronald Press, 1952), p. 198. See also pp. 80-90.

5. E. S. Brightman, *A Philosophy of Religion*, (New York: Prentice Hall, 1940), p. 384.

6. *Ibid.*, p. 335.

7. *Ibid.*, p. 384.

responsible for the temporal process, but then does He not achieve something new and something valuable thereby? But if he achieves something new, that is inconsistent with His eternal perfection. This then might imply that there was some imperfection in God, for if God achieves something, then there must be some sense in which He is imperfect. A perfect being would have everything achieved already in His very perfection. But to say that there is some imperfection in God or to imply that He is evolving or changing, is to present a view of God which is not intelligible in any sense of the term, for God would be neither eternal nor outside time. Here then is the contradiction. If God is what he is supposed to be, i.e. eternal and perfect, He can direct the process of history and guarantee that it realizes purpose, but what purpose could be left for Him to fulfil when He is eternal and perfect? Accordingly, Prof. Malkani rejects the view that the process in time is real and aimed at realizing the highest possible value. "God the Eternal gives meaning to history, and yet how can history transcend God and realize a value which is not yet realized in His own being?" (14)

The arguments for the Temporalist position have perhaps been best drawn together by A. W. Munk. This writer cites three chief lines of factual evidence to support the case for the ontological reality of time: (1) the testimony of immediate self-conscious experience, (2) the facts of evolution, and (3) the evidence from ethical experience. His three-faceted argument may here be summarized. (1) "Time is real, because all of our knowledge arises from reflection upon experience, and time is one of the most real forms of experience."⁸ (2) Cosmic, geological, biological, social, and spiritual evolution all imply change and growth in a certain direction and these are all in time.⁹ (3) To deny ontological meaning to time is to deny the validity and relevance of ethical experience. "If time has no ontological significance and is mere appearance, and if eternity alone matters, then my actions and attitudes lose their significance It does not matter too much how I treat my fellows."¹⁰ Consequently, to

8. Munk, *op. cit.*, p. 86.

9. *Ibid.*, p. 87.

10. *Ibid.*, p. 89. Similarly, C. Hartshorne remarks: "The entire notion of deity as out of time is unethical, responds to no demand of ethical aspiration, centrally contradicts that aspiration." (*Man's Vision of God*, New York: Harpers, 1941, p. 159).

preserve the meaning of ethics, to account adequately for evolutionary facts and to recognize that non-temporal experience would be unthinkable, Munk concludes that time is a real manifestation of God.

It will be seen at once that one of the basic differences between these two opposed lines of argument on the relation of time to God is in the manner of approach to the problem. Prof. Malkani's conclusions on the nature of time are derived strictly from his idea of God. He arrives at his view of time by deducing what it must be because of the nature of God. The temporal process is interpreted from the standpoint of an apriori idea of God or the Ultimate. The view of the Temporalist, on the other hand, reverses this procedure. Prof. Munk's arguments begin with time as an irreducible fact, and take into account the experiences of growth, purpose, and evolution. From these facts the view of God's relation to time is derived. The first position gets its view of time from the nature of God, the second derives its view of God partly from the nature of time. Prof. Malkani's position is in a sense deductive. The other is more inductive. In such matters, it is not at all obvious which is the better approach.

The Temporalist view gets into certain difficulties which do not admit of easy solution. For example, Prof. Malkani might ask how one who believes in the reality of time can preserve the infinity of God. If God is in charge of the historic process, He is then in some sense subject to change. But "then such achievement is inconsistent with His eternal perfection." (13) Temporalists are aware of this dilemma and try to avoid the inconsistency by redefining the attributes of God. They strongly urge that "God is infinite in time, of unbegun and unending duration,"¹¹ but yet insist that infinite time has not already elapsed because "experience shows that everything has not yet happened."¹² Bertocci claims that God "can be eternal and infinite in some respects and changing in others. The unbegun and unending duration of God is the concrete meaning of eternity."¹³ To the question of what in God doesn't change even though He is in charge of temporal evolutionary process, Bertocci attempts to show "that the quality (as opposed to extension) of God's func-

11. Brightman, *op. cit.*, p. 335.

12. *Ibid.*, p. 335.

13. Bertocci, *op. cit.*, p. 446.

tion would not change."¹⁴ And Brightman remarks: "Divine, like human personality is the unity of change and identity; changeless in loyalties, yet always changing, in so far as every creative act of freedom is a change from a previous state. Temporal and dynamic categories triumph over eternalism and the static."¹⁵

Prof. Malkani takes the view that if God is subject to change in any sense, there is imperfection in Him and God "is not God in any intelligible sense of the term." (13) He then adds: "Only a perfect and eternal God can explain, if at all, the emergence of the temporal process through His will. Short of this, He will be a part of history and not a principle of explanation for it." (13) One might ask Prof. Malkani why the idea of perfection necessarily involves static unchangeability. Cannot the meaning of perfection be expanded to include development? Matthew Arnold once suggested that perfection was not a having and a resting but a becoming.

Brightman, a Temporalist, is apparently aware of the kind of criticism implied in Prof. Malkani's article, but he nonetheless prefers his own view maintaining that the alternate position is still more difficult. He writes: "To think of the eternal as utterly timeless in all respects and as wholly other than temporal process is to think of it in a way that may be edifying, but it is useless for the understanding of religious or of any other experience. All our conceptions including that of the eternal derive their meaning from their reference to purpose."¹⁶ Empirical data are accorded a significant place in this view.

Prof. Malkani cannot allow the reality of time for it compromises the very essence of God who is eternal, complete perfection. Thus he interprets time as an erroneous perception of reality. Temporalists, on the other hand, admit the reality of time and try to preserve God's infinity and perfection. Yet in doing so they have to take a view of God which implies that he is subject to change. Indeed, some Temporalists go so far as to say that God

14. *Ibid.*, p. 447. In the succeeding pages he develops this point.

15. Brightman, "Bowne: Eternalist or Temporalist", *The Personalist*, Vol. XXVIII, No. 3 (July 1947), p. 265.

16. Brightman, *A Philosophy of Religion*, p. 386.

is limited in His power though He is perfect in goodness and knowledge. Thus He becomes a finite-infinite God.¹⁷

On Prof. Malkani's view, God does not achieve anything new and valuable in history for to do so would be inconsistent with His eternal perfection. "What purpose is left for Him to realize when He is eternal and perfect?" (13) But is it not possible to hold to a meaningful view of God and still say that He achieves something in history in the form of increased fellowship with His creatures, a fellowship which neither He nor His creatures have without ethical and spiritual growth in time? Are not more things possible for God in history when human beings pray and act in certain ways? I do not see how Prof. Malkani could allow this on his view. Yet it seems more meaningful religiously to say that God achieves richer fellowship with men, and made them so they might achieve it, than it is to say that God achieves nothing in history and in effect is removed from men—in order to keep His isolated, self-contained absolute perfection.

This suggests further question for Prof. Malkani's position, namely, the question of the motive of creation. Why, indeed, is there a time order whether it be our erroneous perception or whether it be real. Is "time" here only because of our ignorance? Is that also the case with history? Does the whole temporal process ultimately and absolutely mean nothing? Prof. Malkani probably could not, like the idealist Fichte, suggest that the temporal order is an arena purposively planned for the development and moral growth of finite souls. It seems that he must subordinate the world of history and time in order to preserve God's completion and for the sake of His perfection. Temporalists are unwilling to do this and are more eager to take into account the experienced facts of moral, aesthetic, and religious growth, maintaining that God created the world and selves in the time order out of the motive of rational love and for the goal of a spiritual community of self-realized persons.

One other difference between these two viewpoints on the relation of time to God involves the question of truth criterion. Prof. Malkani offers a tightly consistent view. If God is absolute

17. See Brightman, *Personality and Religion*, (New York: Abingdon Press, 1934), Chapter III, "The Finite-Infinite God". For an elaboration and development of a God who is finite in power, see Chapters IX and X of the same writer's *A Philosophy of Religion*.

perfection and completion, He cannot in any way be limited or subject to anything. Hence, time cannot be real in any possible sense for it would throw inconsistency into the very nature of God. A Temporalist might ask whether this consistency about God's nature is not too narrow and whether it does not overlook seemingly incontrovertible facts of growth and change. Thus Temporalists generally accept a more inclusive truth criterion than consistency, namely coherence,¹⁸ which seeks to do justice both to logical demands and experienced facts. They argue for God's infinity but also allow that He is in some way related to real time. Nevertheless, it is not at once obvious which is the better truth criterion.

One may still ask a Temporalist whether he has not done the undo-able by splitting the attributes of God, seeing Him both as infinite, and yet in another sense, as finite. Perhaps Prof. Malkani is correct when he observes that "only a perfect and eternal God can explain, if at all, the emergence of the temporal process through His will. Short of this, he will be part of history, and not a principle of explanation for it." (13)

George Berkeley once remarked that when we talk about the question of time, we become "lost and embrangled in inextricable difficulties".¹⁹ This seems even more the case when we try to work out the relation of time to God. Nevertheless, Prof. Malkani has done a real service for us, for he has shown where the basic issues are to be found and has crisply outlined key arguments. This short comment has by no means dealt with the whole richness of his article. More study of Prof. Malkani's presentation will do much towards promoting more understanding and liaison between Eastern and Western idealists on this problem.

18. For example, Brightman holds that "consistency is necessary to coherence, but consistency is not sufficient". See his *A Philosophy of Religion*, pp. 126-129 and 189-193, for a development of this view of truth.

19. Berkeley, *Principles of Human Knowledge*, Section XCVIII.

Persona, Anima, Atman

by

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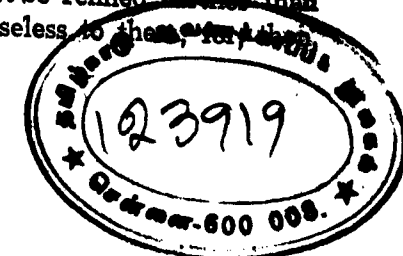
The fortune of the word '*persona*' (*presôpon* in Greek) was made when the Stoics borrowed it from the language of the stage where it belonged and meant 'mask'. They had been the first among Greek philosophers to conceive the Supreme Being and Cause of the universe clearly as a providential God. The world was a big stage, history a cosmic drama, Providence the wise and powerful director who devolved upon each being, especially upon each human being, the irreplaceable part which he had to enact in harmonious connection with his fellow actors. Hence they naturally applied a technical stage term which had already extended its meaning from mask to character and part, to signify human destiny as distributed by God and delineated in his fundamental gift to each one, namely, in the characteristic nature by which each individual is distinct from every other.

After this decisive passage from the realm of external objects to the realm of the subject, the term '*persona*' was ready to be used not only by the Roman jurists but also by the Latin Fathers of the Church. The latter were in search of a term by which the newly born 'science of the Christian faith' or 'supernatural theology' would be able to translate adequately the truths of Revelation, especially the mystery of the Holy Trinity and of the human incarnation of the eternal World.

Christ, the God-Man, could not be said to be two; he was one, though in two distinct natures, the divine and the human. These, though intimately conjoined, were in no way mixed in him: his divine nature remained absolutely transcendent, unchanged, untainted by any finiteness; his human nature was not absorbed in his divinity, which stood perfect and complete. Still, this inner duality of natures did not detract at all from the absolute unity of his being.

If the meaning of '*persona*' could not be refined further than its Stoic usage allowed it, it would be useless to them, for they

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it would simply remain a synonym of 'individual nature'. Fortunately, jurists were already accustomed to use it in order to designate those human beings to whom the law attributed not only duties but rights; (hence, a slave was not '*persona*'.) Thus the term could now be predicated of a complete being, no longer of its nature only, provided of course this being enjoyed consciousness and freedom and, hence, could be the subject of attribution of duties and rights. Without therefore any violence to the accepted meaning of the term '*persona*', the Christian divines could now with a slight precision generalize it and denote by it *any single and complete subsistent, endowed with intellect, and considered as an ultimate subject of attribution of knowledge, free activity and rights*.

Applying this elaborate notion to the revealed mysteries they defined Christ as one divine Person in two distinct natures, and God as a Trinity of Persons, subsisting equally in the perfect unity of the one divine nature, and distinct only by virtue of their mutual relationships.

Further, every human being, including slaves, women and even infants, was to be considered and treated as a person. Angels also, i.e., bodiless but finite spirits, were rightly to be called persons.

The high watermark of this semantic evolution was reached by Boetius (470-525) when, in his *De Duabus Naturis Et Una Persona Christi*, ch. III, (MIGNE, *Patrologia Latina*, LXIV, 1343 D.), he proposed the following definition, which, although slightly imperfect, was to remain classical during the whole Middle Ages: "*Persona proprie dicitur naturae rationalis individua substantia*" (The proper definition of 'person' is 'individual substance endowed with an intellectual nature'.)

After that, the Schoolmen had an easy task. Theirs was only to clarify even further the terms of this definition. I shall now propound briefly the results attained by them:

1) A person should be a *subsistent being*. 'To subsist' means 'to exist in itself', not in something else. This excludes not only genus, species and individual notions, which, as such, exist only in minds and have no independent being, but also parts, which have no existence apart from the whole, and accidents, which depend entirely on the act of being of their substance. Further it excludes also all substances which happen to exist by the

act of being of another, for instance, by the being of God according to some forms of pantheism. The Christian teachers reject pantheism in all its forms. This is the reason why they had to explicate the term '*substantia*' in Boetius' definition by limiting it to mean only self-subsistent substances.

2) A person should be a *distinct* or *singular* subsistent being. This precision is made with the intention of excluding the narrowness of the term '*individua*' in Boetius' definition. Things are distinct when they cannot be predicated *in recto* or by identity of one another. Singularity is that kind of distinction which is proper to subsistent beings. In order to be singular, such a being may have to be distinct not only from all other beings in general, but also from all other species, and from all other individuals in its own species. God is distinct from all finite beings by the very transcendence of his nature. Since he does not belong to any genus or species, his singularity is absolutely perfect. In God the three divine Persons are distinct from one another only in virtue of their mutual relations. Angels, on the other hand, are conceived by the Schoolmen as so many spiritual species or degrees of being. Hence the principle of their singularity is their own essence or nature, which contains exhaustively the full perfection of a particular degree of being. Since such a degree is necessarily finite, it sets them apart from God, and since it is exhaustively realized in a single such being, the question does not arise of distinguishing an angel from fellow-angels of the same degree. The plurality of angels is therefore merely 'formal', not predicamental or strictly numerical. But all other beings, on account of their materiality, are distributed in classes or species. The ontological perfection represented by such a material species, though truly verified in all its members, is yet never realized exhaustively by any of them, but only in an imperfect fashion. It is by such degrees of imperfect realization of the same nature, that individuals of one species differ from one another. But, their nature being similar, they are much less distinct from one another than species among themselves or than God from the universe of his creatures. Hence, individuality is but the last and most imperfect degree of singularity. And while personality always implies singularity, it does not necessarily require individuality. Indeed, among persons, only men are individuals.

3) It follows immediately from what precedes that a person should be a *complete* being in itself. Indeed, for a reality to be

distinct from all others, it should not be a part of something else. Hence, nothing that is by nature a part, can be a person. For instance, the human soul, though it is subsistent, is not a person; only the complete man, soul and body, is strictly speaking a person. This necessity of being complete is called the incommunicability of the person. With regard to it, two restrictions must be made, the first concerning the human person, the second concerning every person as such. First, human personality, since it denotes the lowest and least perfect kind of person, admits secondary communicability together with fundamental and primary incommunicability: while existing in himself and by virtue of his own being, man is also sociable and a part of the human genus; however this unity with his fellow-men is not substantial but consists wholly in a net of variegated relationships. (Similarly, there exists a necessary communication of the relational type not only among angels but between all members of the created universe, and, on a deeper ontological level, between all finite beings and God, since as creatures they depend entirely upon him for their preservation, their activity and their end as well as for their beginning.) Secondly, the incommunicability of the person does not exclude communication either through activity in general or through knowledge and love, since, on the contrary, this type of relation is, as we shall now see, characteristic of personality.

4) All beings that verify the first three notes are called 'supposits', but the exclusive mark of the personal supposit is that it should be *an ultimate subject of intellectual, free activity and rights*. In other words, its nature should be an intellectual one. Its mode of knowledge, freedom and rights will differ according to its degree in the hierarchy of persons, but all persons are by nature capable through their intellect and will of relating themselves consciously to all beings and especially to God. This spiritual union with God and, in him, with all finite existences constitutes their supreme end and bliss. And on account of this inner ordination they are, and must be treated as, ends in themselves and never as pure means. To enthrall them and treat them as mere 'objects' is to offend against this fundamental right and dignity.

Such are the precisions brought forth by the Western Schoolmen to clarify the notion of person which formed the pole, rising from man to God, around which revolved their theocentric humanism and their civilization.

The scope of this paper being limited to ascertaining some definitions, I must resist the desire of further describing the history of 'persona'. Let it suffice to say that in the hands of the well-intentioned but anarchic philosophers of later days it hardly succeeded in retaining its ontological status and was in the end almost monopolized by positivistic Psychologists who could but grant it a very extrinsic meaning. However, the modern trend towards 'Personalism' may succeed in recovering its authentic signification.

* * *

The meaning of 'anima', soul, (*psychê* in Greek) has remained much more homogeneous through the centuries since it was first defined by Aristotle. It designates *the first inner principle of life and activity in all living bodies*. As such it pervades the whole body and is by nature distinct from the bare matter which it informs and determines by elevating it to a certain degree of life. This determination, however, can never be perfect because it is counteracted by bare matter, the other inner cause which we are bound to infer as a pure principle of indetermination and receptivity in order to explain metaphysically the individuation of bodies and their multiplicity within the same species.

The scale of degrees in corporeal life allows us to distinguish several kinds of souls: vegetative, animal and intellectual. The animal soul performs also the functions of a vegetative soul, and the intellectual soul those of a vegetative and of an animal soul.

The term 'spirit', (*pneuma* in Greek) applies properly to the intellectual or human soul, but not exclusively, for there exist spirits, such as angels and God, which are not to be called souls, since they are not the inner principle of life in any body. God, indeed, though he is more immanent in all creatures than their own substantial form or soul, is at the same time so absolutely transcendent that he may not be conceived as the animating principle of anything, not even of the whole universe. Unfortunately this difficult synthesis of divine immanence and transcendence has escaped the grasp of many philosophers, especially the strict pantheists.

The human soul, because it is a soul, cannot begin to exist except in a body which individualizes it and to which it communicates life, thus making it its own, and by the instrumentality of which it issues forth into action. On the other hand, because

it is as truly a spirit, this dependence upon its body either to be or to act is merely extrinsic, as witness the very transcendence and self-reliance of its spiritual activity of knowing and willing; it can, therefore, even after its separation from its own body, continue to exist and to act spiritually.

The other kinds of souls, on the contrary, do not manifest this intrinsic independence in the midst of extrinsic dependence, and lacking this evidence we are not allowed to attribute to them any kind of spirituality or immortality.

* * *

The first meaning of 'ātman' is clearly that of the reflexive pronoun. And strictly speaking the reflexive pronoun refers to the whole subject, but not necessarily to the integrality of its aspects. Indeed, there are many ways of approaching and grasping a subject, the scale of which extends from the most extrinsic to the most intrinsic. A subject can be spoken of with regard to his material possessions (*artha*), his relations to other subjects (*svāmin*, *mitra*, *strī*, *putra*, *guru*), his substantial relation to his gross body (*deha* or *annamaya*, figuratively *kṣetra*), his accidental relation to the external form (*rūpa*) of this body, or to its name (*nāma*), his instrumental relation to its vital functions (*prāṇa*), its organs of action (*karmendriya*) or of sensuous perception (*jñānendriya*), the formal objects of the latter (*tanmātra*), the internal sense (*antaḥkāraṇa* or *manas*), the function of individuation (*ahaṁkāra*) and its self-conceit (*abhimāna*) (this function when disturbed can give rise to a double or plural *abhimāna* or multiple personality), the faculty of cognitive and volitional decisions (*buddhi* or *mahat*), its modifications (*vṛtti*), especially, discriminate knowledge (*viññāna*), and its characteristic, consciousness (*caitanya*), finally, with regard to his ontological root (*mūla*), the supreme *Brahman*.

The term *ātman* has been used in all these cases and the list I have drawn is far from being exhaustive. Such a variety of applications, which may well bewilder the modern scholar in śāstric lore, was fortunately a spur rather than a puzzle to the ācāryas of old, and it is possible to recover from their speculations the golden thread which will guide our way out of that labyrinth.

Their reflexion always comes back to a fundamental conviction which they have in common with Plato, St. Augustine and Platonists, though doubtless independently of them. It is the

conviction that in all cases that is most real and true (*satyam* or *sat*) which is most enduring, subtle and pervading.

It follows immediately that the wise man should endeavour to discriminate (*viveka*) true reality from what does not deserve to be called so in the first place and with full right. Hence Indian thinking is characterized by analysis, dissociation, purification, isolation (*kaivalya*), rather than by the effort to retain, in spite of analysis, the integrality and the variety of the experience from which philosophical enquiry is bound to start. This was also the direction which philosophy first took in the West, but it was soon counterbalanced by Aristotelianism and later by Christianity which is ineradicably catholic, i.e., totality-minded. We have seen an example of this in the development of the notion of person.

Sadviveka has permeated Indian research in all fields of knowledge. For instance:

"That is being (*sat*) which is the object of a knowledge which does not fail; that is non-being (*asat*) which is the object of a knowledge which fails" (*Śaṅk. Bh. Gītā Bh.*, 2.16).

"There are two sounds (*śabda*) in the words that we speak: one, the essence of sound; the other, used for indicating an object ... The sound (*spṛṣṭa*) in the *buddhi* is the cause of the various sounds heard (*nāda*)" (*Bhartṛhari, Vākyapadīya*, I, 44-46).

"All the words of *Veda* mean common *jāti*s; for otherwise the whole fabric of *Mīmāṃsā* would fall to the ground, since all individual objects are ephemeral" (*Mīmāṃsāsūtra*, 1.3.33 and 1.4.10).

"The idea of difference (between syllables) is conditioned by accidents distinct from, and superimposed upon, the *ākṛti*s; ... recognition is caused by the intrinsic nature (*svarūpa*) (of the syllables)" (*Brahmasūtrabhāṣya*, 1.3.28).

The authority of the *Veda* depends upon its eternity (*nityatva*) and "this eternity of the self-dependent *Veda* has been established from (the fact that there is) no remembrance of any author (of it) and from other (arguments)" (*Ibid.*, 1.3.29).

Perfect *vidyā* is that knowledge only which endures uncontradicted for ever (*abādhita*); "it is characterized by uniformity (*samyagjñānamekarūpam*), because it depends upon actually existing things (*vastutantratvāt*); for true reality is that which

persists in one and the same form through all its states (*ekarūpeṇa hyavasthito yo 'rthaḥ sa paramārthaḥ'*) (Ibid., 2.1.11).

Such quotations could be multiplied and find parallels in the West. Does not St. Augustine write: "All creation I beheld and I saw that it neither is absolute being nor absolute non-being. Because it is from Thee, it is; still it is not what Thou art, and therefore it is not. That indeed truly is, which endures beyond the reach of change" (*Confessions*, VII, 11)?

It was but natural that the *ācāryas* should pursue this search for the unchangeable as a search for inner causes, even unto the supreme and universal cause of everything.

Now hardly any philosopher would deny that actual causation implies a certain kind of presence of the cause in the effect. Still there is room for a division of causes in *samavāyi* and *asamavāyi kāraṇa*, including under the latter head all these *hetus* such as *nimitta kāraṇa*, *kaṇa*, etc. which the effect does not need continuously in order to remain what it is. It is in the group of *samavāyi* or permanent and pervading causes that we shall find *ātman* in its philosophical sense. Let us listen again to Śaṅkara:

"It is obvious that the effect, which is limited and gross, is pervaded by its cause, which is unlimited and subtle. Just as earth (is pervaded) by water, similarly each preceding (element) must be pervaded by the succeeding one. Thus the purpose of (Gārgī's) enquiry reaches up to the *ātman* that is within all. Here the five elements, combined in an ascending order, are arranged according to their degree of subtleness and their pervading causality. And, on this side of the supreme *ātman*, independently of it, there is no other reality, for the *śruti* says, '(It is) the Truth of truth', and 'truth' is the five elements, and 'the Truth of truth' is the supreme *ātman*" (*Br. Up. Bh.*, 3.6.1).

Commenting upon the Pre-Sāṅkhya text of *Kāthopanishad*, 3.10-11, he follows the well-known pedagogy of *Arundhatī-nyāya*, and points successively first to the objects of the senses, then to *manas*, *buddhi*, the *ātmā* of *buddhi* (i.e., *Hiraṇyagarbha*), further still to *avyakta*, and lastly to *Puruṣa*. Of each one of them in turn he says that it is superior, more subtle and greater than the preceding one, and that it is its inner *ātman*; but of the *puruṣa* he says that it is "the utter limit, the culmination, the climax of subtleness, greatness and inner-selfhood" (*sūkṣmatvamahattvapretyagātmatvānāṃ sū kūṣṭhā niṣṭhā paryavasānam*).

In *Kāthopanishadbhāṣya*, 6.12, he explains that the elimination of effects terminates in existence: "Thus, indeed, this effect (the world), when followed along the ascending series of its more and more subtle (causes), leads ultimately to the pure awareness of 'being'. Even when, through the elimination of objects, the intellect itself is eliminated, it is full as it were of the embryo of 'sat' when it is eliminated. For the intellect is our instrument in the perception of the truth of 'sat' and 'asat'. If the world had no cause, this effect, being associated with nothing but 'asat', would at every step be grasped as 'non-being only'. But it is not so. On the contrary, it is at every step grasped as 'being only', just as the effect of clay, etc., namely jar etc., is associated with clay etc. Therefore the *Ātman* should be conceived as being the root of the universe, not otherwise".

On the other hand, "pure consciousness is *ātman*...for where-as the objects betray their own form, consciousness never fails" (*Praśnopniṣadbhāṣya*, 6.2). Thus in analyzing our inner experience we can, no less than in our analysis of the external world, arrive at a supreme and immutable cause, the Ear of the ear, the Sight of sight, the Thought of thought, the illuminator in all cognition, and therefore the supreme *Ātman*. Only through *lakṣaṇā* or indirect indication can words signify Him somewhat. Thus, for instance, in the sentence, '*Satyam jñānamanantaṁ Brahma*,' "the term 'jñānam' expresses the perfect actuality of the abstract idea which it conveys" (*bhāvasādhana jñānaśabdaḥ Taitt. Up. Bh.*, 2.1), for "knowledge is the proper form of the *ātman*; it is not separate from it, hence it is permanent indeed" (*ātmanah svarūpam jñaptirna tate vyatiricyate ate nityaiva*) (Ibid.). On account of his supremacy, this illuminating *caitanya* must be conceived as the universal first cause of all cognition, and therefore as one for all (*sarvātman*). According to Aquinas also, "God Himself causes the natural light in us to be preserved; He Himself directs it that we may see; obviously, therefore, the perception of truth must in the first place be ascribed to Him" (*Comm. on Boetius' De Trinitate*, Proemium, I. 1.8).

The relation between all effects and their supreme *ātman* is called *tādātmya*, a term which in this context should not be rendered by 'identity,' since it rather means 'having that as one's own *ātman*'. This relation is not reciprocal for "in spite of the non-otherness of cause and effect, it is the effect which has its *ātman* in the cause, but not the cause in the effect" (*ananyatve*

'pi kāryakāraṇayoḥ kāryasya kāraṇātmatvaṃ natu kāraṇasya kāryātmatvam) (Br. Sūt. Bh., 2.1.9). "Nor can (the universe), being no ātman, be the ātman of anything" (Na cānātma sansarvam-ātmaiva bhavati kasyacit) (Br. Up. Bh., 2.4.14). Because nothing can either be affirmed or be apart from the supreme Brahman-Ātman, things may be said to be non-different (*ananya*), not utterly separated (*nātyantabhinna*) from it, but this Śāntātman itself is completely transcendent and other than them.

We may now conclude to the philosophical meaning of the term ātman. According to its original meaning, it designates either the whole subject or more often something intimately connected with the subject. On account of its constant equivalence in *sāstra* with other terms, such as *kāraṇa*, *svarūpa*, *adhikarāṇa*, *pradhāna*, *upādāna*, *svabhāva*, *pratyagātman*, it must be interpreted as a casual principle of the *samavāyi* or immanent type. Because it is considered as *gaṇa* (figurative) rather than *mukhya* (primary, proper) unless it is somehow replaceable by such terms as *jñā*, *antaryāmin*, *sākṣin*, *upadraṣṭṛ*, *drkṣvarūpa*, *caitanyjyoti*, *pramāṭṛ*, *cetayitr*, *jñāna*, *jñapti*, it must be thought of as a conscious inner principle and even ultimately as pure undifferentiated consciousness. Finally, in its supreme sense (*paramārthataḥ*), it applies only to the universal Cause, immanent in everything and at the same time separated (*prthak*), transcendent, other than, and superior to, everything.

In short, ātman can be defined as *inner conscious principle*. It is divided into finite ātmans, which verify the definition properly but not absolutely perfectly, and the infinite Ātman, which verifies it perfectly and has the property of being absolutely transcendent and, by nature, utterly free from any relation to anything else, whereas everything else depends on It to be affirmed and therefore to be.

Among finite ātmans can be ranged what Western philosophers have called *soul*, while, on the other hand, their notion of 'persona' applies perfectly to the supreme Ātman.

Religion and Human Nature

by

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I. Meaning of Religion:

Religion as understood in the context of this Paper is a peculiar way of life. Religion, as defined by Warren's *Dictionary of Psychology*, is "beliefs, attitudes and practices with respect to super-human, personal or personified power or powers which are responsible for some or all of the processes of Nature, inanimate or animate, and are conceived as capable of being influenced by human behaviour". Fairchild's *Dictionary of Sociology* has defined religion as a "social institution built up around the idea of a supernatural being or beings and the relation of human beings to them". Thus, religion is essentially a way of life involving a reference to the world beyond Nature, and thus the various established religions are to be understood as so many ways or modes of life, involving such reference to the supernatural, as laid down either by their individual founders (e.g. Christianity or Islam) or as established by social tradition (e.g. Hinduism or Judaism). The differentiating mark of religion as a way or mode of life lies in its reference to the idea of the supernatural or the divine, and it is this idea of the supernatural or the divine that affects every phase of life described as religious. The foundation of religious life rests on this idea of the supernatural world, and the centre of the supernatural world is the God-idea. It may, therefore, be said that the essence of religion is the idea of divinity.

II. Ingredients of Religion:

On a closer analysis, religion will be found to consist of the following ingredients:

(1) There is a faith that beyond the world of our actual experience or beyond the world of Nature, there is a *supernatural* world, the belief that the world of actual experience is not all, that there is something *beyond* it or *behind* it,

(2) There is also a belief that there is a *controlling power* behind this supernatural world, a power that is characterized by personal qualities. In higher religions, there is a faith that such a power behind the universe is *only one* and *not many*.

(3) There is also a faith that this power behind the supernatural world controls not only the supernatural world beyond, but *also this world*.

(4) There is a faith that this power, which is really God, is characterized by *moral qualities*, especially holiness, sympathy and mercy for humanity, helpfulness, appreciation of moral qualities in man, etc.

(5) There is a faith that the *moral duty of man* is the obedience of the dictates of this power or God, a faith that this God is pleased by such obedience and bestows favours on man as a reward for this obedience, a faith that this power or God resents disobedience and visits the disobedient with disfavours or punishments, a faith that obedience to this God is merit or morality, disobedience to Him is demerit, immorality or sin.

(6) There is also a faith that moral acts secure in this world during life and in the next world after death *rewards* from God, and that immoral acts bring in their turn, in this life and in the next, *punishment* and *purgation*.

(7) There is also a further element in religion, in addition to the various beliefs and attitudes mentioned above, viz. a body of rules and regulations, injunctions and prohibitions, which constitute the body of actual duties and obligations for a votary of religion.

III. Psychology of Religion:

Now, behind all life and activity there is mind; and from this point of view, it is the business of the psychology of religion to explain the religious activities and beliefs of man. Psychology is, broadly speaking, a science of the mental life and behaviour of man. In recent times, psychology is particularly understood as a science of behaviour, in fact, as a science of the life adjustments of man with reference to his environment. From this point of view, the psychology of religion is charged with the task of explaining the activities and beliefs involved in man's life, particularly characterized as religious. Psychology of religion must

inquire into the origins of man's religious life and must also discover the mental factors and conditions behind the various activities of man described as religious. It must also point out the place or function of religion in man's life as a whole, and must indicate whether this place or function of religion in his life is one of an abiding character or is evanescent in nature. Psychology of religion is expected, further, to describe the nature and types of the inner religious experiences.

It is proposed in this paper, after a brief reference to the origin of religion and to the fundamental motivating factors underlying human nature, to bring out the fact that all these factors find their reflection in man's religious life and activities, and the fact that religion, being thus but a reflex of integral human nature itself, promises to remain a perennial aspect of human life.

IV. Origin of Religion:

Let us, first of all, inquire into the origin of religion. There is a view, according to which, the origin of religion lies in magic. On the other hand, there is also a view according to which science and magic are twins and that religion is different from both, its difference from them lying in its other-worldliness. According to this view, science and magic are both practical and this-worldly. The true view appears to be that all the three, namely, religion, science and magic have originated from the primordial *praxis* (tissue of life practices or practical activities) of man's life. These primordial life practices consist of modes of successful life activities directed towards the satisfaction of the fundamental needs of life. These modes of activities have been forged in man's individual and social life in the light of his own and others' experiences and are directed towards effecting adjustment with the environment. It is from this primordial *praxis* of life that all the three, viz. science, magic and religion, originate. Science arises out of a resort, within the field of experience, to analysis, inference and experiment, and the essence of science is discovery of and resort to the causal connections in Nature. Science is directed towards the discovery and establishment of causal relations between natural events and processes. On the other hand, broad analogies in the field of experience are the foundation of magic. Magic is characterised by the absence of analysis and consists in making inferences on the basis of crude analogies available in experience, and, therefore, the essential characteristic of magic is

resort to a mere spatial or temporal coexistence or sequence of natural events *without* reference to any causal connection between them. Magic, accordingly, is characterized by the fallacy of *post hoc ergo propter hoc*. It may be said that the search for means of bringing about the desired results is the common characteristic of all the three types of activities of man's life, namely, science, magic and religion. But, whereas in science an attempt is made to formulate and apply laws of the cause-and-effect connections, in magic no such connections are established, but any event found to be merely temporally or spatially connected with any other, tends to be accepted and used as the effective cause thereof. In religion also, there is, as in science and magic, a search for the causes or means of desired ends, but there is in it also a further reference to the *other-worldly* powers as the causes of these ends or events, and thus religion involves, as science and magic do not, a reference to causes which are *outside* the pale of this world.

Thus, the origin of religion lies in the primordial *praxis* of man's life, and the motivating power behind it is the original longing of man to achieve the harmony of his needs, desires and impulses with his environment, namely, the entire universe itself, especially the supernatural universe. To adjust the environment or to be adjusted with the environment is the essence of successful or satisfied life, and the entire life of man is a sustained effort to achieve this end. Religious life is just a mode of the fulfilment of the longings and appetites of man's nature. Man's original nature is a tissue of wants, appetites and needs, and these influence and colour all the efforts and activities involved in human life. It is no wonder, therefore, that these wants, appetites and needs influence, and are reflected in, the religious life of man as well. Behind all human life, there are these desires, longings and appetites which, directly or indirectly, motivate all the activities of man's life. Psychology of religion is naturally expected to discover the nature of these motives and demonstrate their operation or functioning in all the activities of man characterized as religious, because religious life is a mode of satisfying these motives, even as science and magic are.

V. Fundamental Motivations of Life :

Let us now, therefore, proceed to state briefly what these fundamental motivations behind man's life are. In what follows, use has been made, as material, of the analysis of these motives

and their phenomenology in the religious life of man attempted by Mr. Knight Dunlap in his famous book—*Religion—Its Function in Human Life*.

The following are the fundamental motives of human life:

(1) Nutritional Desires: These are desires for foods and drinks or their substitutes, which contribute to the nutrition and sustenance of the organism. (2) Protectional Desires: These are desires for defence or protection against injury, suffering or death. (3) Rest Desire: These are desires for relaxation, relief, quiet or recreation. (4) Activity Desires: These are the desires to do something, including the desire for activity, for keeping oneself busy, the desire to achieve something. (5) Excretory Desires: These are desires to get rid of the waste products, continually accumulating in the organism. (6) Amatory or Erotic Desires: These are desires for mating with the members of the opposite sex. (7) Philopedic Desires: These are desires for parental association with and care-taking of children. (8) Pre-eminence Desires: These are egotistic desires for self-assertion, predominance over others, etc. (9) Conformity Desires: These are desires to follow a leader, group standards, group conventions or group fashions.

These then are the fundamental motivations of life, and the thesis of the paper is that all these are found to be reflected in man's religious life. In particular, the nutritional desires and the protectional desires are found to be particularly reflected in man's religious life and contribute a good deal to the religious development of man, because these motives are such that they require a good deal of industry and planning for their satisfaction. Other motives comparatively are of secondary importance in all life and, therefore, also in religious life, though they also have a function in life and are, therefore, inevitably reflected in religious life also.

VI. Fundamental Motivations Reflected in Religion

(a) *Nutrition*: We shall now proceed to point out how these different motivations are reflected in the religious life and activities of man.

As regards nutritional desires, it may be said that need for foods or drinks does not by itself create religious life. It is only when foods and drinks become scarce that these motives give rise

to religious activities directed towards their acquisition through divine aid. Elaborate rituals come into existence. Eating itself comes to be elaborated into a ritual and the various food-substances, whether vegetable food or animal food, come to possess a religious or supernatural significance. Injunctions and prohibitions regarding food-substances come into vogue. Particular animals and fruits come to be recognized as holy or unholy, and thus elaborate modes of activities come to be developed in relation to them. Anthropology has brought to light various types of practices of man with reference to his foods and drinks, and they all illustrate the same principle, namely, that man comes to attach other-worldly, supernatural or divine significance to these food-substances and to his own activities and practices in relation to them. As an illustration of these, it may be mentioned that specific animals, such as deer or pigs or goats and sheep, birds, etc., come to be particularly preferred as articles of food, and certain others, such as, for instance, certain reptiles and lizards come to be tabooed for use as foods. Further, not only food-substances but also instruments of food-production, such as the agricultural implements, come to possess a religious significance, and elaborate rituals in regard to them come to be developed. It will be remembered that in all agricultural communities the plough and other implements and the bullocks and horses used for operating them come to develop a religious significance.

(b) *Protection from Injury:* In regard to the protectional desires, it may be realized that self-protection is one of the most fundamental of life's motivations, and, therefore, activities and instruments of self-protection also come to enjoy a religious importance in human life. Injury or harm can accrue to man from different sources, and protection against these comes to be one of the religious preoccupations of man, and instruments of such protection come, therefore, to possess a religious significance.

For instance, injury is possible from thorns and stones and from brambles. Man, accordingly, came to provide for the protection of his feet through the use of shoes. The use of these shoes came to be subject to elaborate religious injunctions and prohibitions. Thus, for instance, shoes have to be taken off when you enter a holy place of God, since God cannot be any source of injury. Injury can also accrue to man from the stinging or biting insects, such as flies, mosquitoes, etc. As a protection against these, various types of covering or clothing came into

use, such as, for instance, gowns, burkhas, headgears, etc., and a religious sentiment came to attach itself to them. The use of loin-cloth also is an instance in point. Injury is also possible from dangerous wild animals, and this led to the use of various missiles for self-protection, such as clubs, spears, axes, arrows, etc. Protection from these animals was also sought to be secured by residence at night in the caves. Religious atmosphere again came to envelop all these instruments of protection. It was also possible to use some of the animals themselves as instruments of protection, as, for instance, the dog or the falcon, and it is no wonder that these came to develop divine qualities, and elaborate rituals of behaviour towards them also came into existence as a consequence.

Injury was also possible from man. Accordingly, instruments for self-protection against man also came into existence, such as, for instance, shields, armours, breast-plates, etc., and these also developed religious significance. Further, as one of the modes of such protection against man, there came into vogue the increasing use of caves and bastilles. The idea of temples for Gods itself appears to have arisen from such use of caves and bastilles by man for self-protection.

Further, injury from illness and disease also was possible; and through the observed efficacy of some herbs as a remedy against them, certain herbs themselves came to be charged with divine qualities. Of course, in addition to the use of herbs as remedies, behavioural rituals and incantations also came into vogue as remedial measures.

We may also mention the possibility of injury from atmosphere, from heat and cold, from the sun and rain, snow, wind, floods and other forms of natural forces. As a protection against these, again, different types of clothing, especially headgears, came into vogue, and injunctions and prohibitions in regard to them also came to be developed. In religious life, certain types of clothes were encouraged and certain other types tabooed. The use of caves, pits, eminences, houses, temples also came to have religious significance with reference to protection from such natural forces.

Lastly, there was a possibility of injury also from unknown forces of the world and beyond, such as ghosts and spirits. It was accordingly necessary to appease and propitiate these forces,

and elaborate rituals, including incantations, came into vogue for securing the satisfaction of and favours from these agencies.

(c) *Other Motivations:* It will thus be clear that nutritional and protectional desires are the fundamental motive forces behind a good deal of man's religious life and behaviour. But it must also be realized that the *other* motivations also contribute in their own way to the development of the phenomena of religious life. Thus, with reference to the rest desires, it may be pointed out that religious life has often meant the search for peace in life and the means to attain it. Thus, in many modes of religious thought in all countries, for example, in India, emancipation or Moksha is consciously cultivated as the goal of life, and the means to attain it are sedulously searched for and cultivated. The elaborate development of the physical and spiritual disciplines in the school of Yoga, for instance, in India, is an apt illustration in point.

In regard to the activity desire, religious life seeks to provide for it by developing games, dances, congregations and so on, which afford ample scope for the desire to do and achieve. Olympic Games of ancient Greece or mystical dances, traceable in the early histories of most of the human races, are again illustrations relevant to the point under reference.

In regard to the excretory desires, it may be mentioned that in every religion there are modes of activities calculated to conduce to the purity and cleanliness of the body. Personal hygiene comes to be developed into an elaborate ritual and includes bath and the use of holy cloth. Special significance comes to be attached in this connection to baths at holy places. Ideas of contamination or pollution and relief therefrom come to be developed with the attendant rituals.

Amatory or Erotic desires find their reflection in religious life both by way of their satisfaction through such institutions as the *devadasis* or cult of *Śakti*-worship, and by way of their regulation through such institutions as *brahmacharya* or the marriage-bond.

Philopædic desires find expression in the worship of the juvenile forms of divinity. As for instance, the worship of Krishna as a child (Balkrishna) and the worship of Jesus again as a child form a major portion in the religious activities of certain sects of Hinduism and Christianity.

As regards the pre-eminence and conformity desires, reference may be made to the elaborate development, which takes place in the religious evolution of all human groups, of Episcopacy with the different orders and levels of offices and priests and the consequent ritual to be followed by the leaders and followers.

The conformity desire in particular finds expression in the elaborate charting of life's rituals and provision for retribution as a consequence of deviation from them.

Thus, it may be said that the *entire* human nature or mind with all its impulses and motivations finds elaborate expression in the phenomenology of man's religious life. Elaborate rituals and institutions and beliefs come to be developed as the variegated expressions of these fundamental elements of human nature, and thus it may be said that human nature is writ large over the whole of man's religious life. Religion in man's life is the expression not of any single instinct, impulse, motive or desire (as it is sometimes held), but it is the expression of man's whole personality.

Religion, it may be added, also includes modes of human activity which are directed not only towards the satisfaction of man's motives in *this* life, but also his motives with reference to the life *after death*. Thus, in every religion there are elaborate funeral rites provided for the disposal of the dead, and each one of the systems of such funeral rites incorporates man's beliefs regarding the nature and prospects of life after death. Thus, cremation, burial and abandonment of the dead bodies, each implies a different ideology in regard to the life after death. Anthropology has unearthed abundant material to substantiate the point that religion, among other things, is also an attempt to satisfy man's ideas and aspirations as regards the life after death.

VII. *Future of Religion—Its Inalienable Functions:*

After having thus pointed out the very vital and absorbing place and function of religion in human life, it will be desirable for us to refer to the future of religion in the life of the modern man and, in particular, to the question whether religion will ever come to be completely eliminated from his life.

Let us in this connection, first of all, realize that the principal or general function of religion in life is the fulfilment and organization of life. We have had abundant proof of this its function in the *past* and *present* life of man. Religion has served many

specific functions in man's life in the past—economic, social, political, medical, moral, etc. Each one of these several modes of man's *religious* activities has figured as the partial or the whole content of man's life at the several stages of his cultural development in the past. Religion has served man for purposes of acquisition of food, protection, education, sports, family organization, recreation, medical relief, etc. But most of these functions have now been shed off and separated from religion and have been taken over by science and technology. For instance, acquisition of food has been taken over by the science of agriculture. Protection is managed again by the technology of war. Education has come to be recognized as a secular and a specialised social activity. Marriage and other social institutions have also now gone beyond the pale of religion. Medical relief is the special charge of the medical science, and political life also has now developed a secular character. What specific or general functions, then, are left to *religion proper*, and what is its future? It has been maintained that, on account of the scientific and technological development brought about by the human genius, religion has been rendered an evanescent institution of human life. In fact, religion has been described as a suicidal institution. A reference may be made in this connection to Macaulay's famous view that, as science progresses, poetry or art (he could well have added here religion) tends to deteriorate. But we cannot accept this view. Whatever be the nature and extent of the progress of science and technology, religion will never come to shed off all its functions, because even if religion comes to shed off its *other* life-serving functions, it can never shed off its two fundamental functions, for the proper discharge of which religion will always be an inalienable element in human life.

(a) *Fascination of the Unknown*: In the first place, there is in man an ineradicable fascination for or tug towards the unknown, the supernatural, the other world, the life after death. Howsoever far may science develop, it can *never* unravel the *whole* universe. Any way, there is no foreseeable possibility that science will ever cover the entire universe within its purview. There will always remain an element of the unknown in this universe, on account of the finitude of man's powers and the vastness of this universe. As a consequence, man's indulgence in his imagination, emotion and activities with reference to the *unknown* (in other words, his adhesion to religion) promises to continue for ever, and this will be a perpetual source of diverse

motivations for man's religious life and activities. No other institution, not even philosophy, can satisfy this longing towards the unknown, which man will perpetually continue to experience, and to which religion alone can cater.

(b) *Moral Reorganization*: Secondly, revision, reorganization or readjustment of the moral life and institutions of man will also continue to be another inalienable function of religion in human life, a function which no other institution can take over. The moral science is a science that generalizes on the basis of the inner intuitions of the moral heroes of mankind. These intuitions are the inner inspiration of great human personalities, the moral leaders of mankind, who on account of their special spiritual powers are privileged to delve deep into the ocean-stream of human life and experience, and it is these their intuitions that, from age to age, influence and shape the lives of individuals and societies. Our moral values and standards change and develop from era to era under the influence of these intuitions. Human life, whether individual or social, will be found ultimately to be based on such intuitions of the leaders of men, as implemented with the assistance of scientific technique. But even if science is of such considerable assistance in the implementation of these intuitions, these intuitions themselves can never be said to be the products of scientific thinking as such. These intuitions emerge in the course of the inner spiritual life and struggle of great personalities and are the products of their communion with the inner life of their own souls. Thus, for the continual reorganization and revision of the moral life of man, individual and social, the need of such religious and intuitive personalities end their experience will continue to be felt and can never be satisfied by the lucubrations of science. To refer to a contemporary example, we may mention the great work that Shri Vinoba is doing through his Bhoodan movement. It may be said that communist ethics, which the Marxists claim to be based on sound scientific thinking, is being morally powerfully implemented by the religious intuitions of Vinoba than by the secular instruments and aids of the followers of Marx.

As a matter of fact, it may be said that all great social upheavals ultimately stem from the religious intuitions of great personalities. Democracy itself may be said to have been based, historically and psychologically speaking, on Jesus Christ's intuitions regarding the status and dignity of the human individual.

This status and dignity of the human individual, as Christ intuited it, may be sought to be implemented by the social sciences, but the fundamental fact remains that all our democratic social science moves round the fundamental intuition of Jesus Christ. We may, in fact, say that though there is no such thing as *Christian Social Science*, Christianity has a message for social science on which all social disciplines must, according to it, be based. And what has thus been said about Christianity may also be said about all other major religious intuitions of the great religious heroes, each one of whom has his own typical message for our social life and organization.

It may, therefore, be truly said that this social function of religion (viz. that of the continual revision and reorganization of moral and social life) also is one which can never come to an end and cannot be taken over by any other institution of human life. It is a function which religion will have to continue to serve again and again in human evolution. Krishna's famous utterance, that He incarnates or creates Himself again and again whenever there is a decadence of religion and an onset of irreligion, may be taken as a declaration of Religion itself personified. Religion, therefore, is a perennial need and institution of man's life, because its roots lie deep in the depths of human nature itself.

Matter for Science, Common-sense and Philosophy

by

G. R. MALKANI

We are familiar with only one kind of matter,—and that is matter as sensed. Tables, chairs, books and trees are some of the examples. This is common-sense matter. There is, however, a very material difference between this matter and matter for science. If we are to accept the version of science, matter is ultimately made up of entities, which cannot be sensed and which are in a sense particles of energy only. They have none of the secondary qualities of touch, vision, etc. What we *sense* are packages of these particles of energy. There is thus a difference between the reality of matter as science conceives it and the appearance of it to us in perception. The reality is not solid, or continuous or coloured. It is more empty space than filled space; and so far as filled space is concerned, the energy particles have none of the secondary qualities which we attribute to masses. The inference is that the core of matter is neutral so far as sense-qualities are concerned and displays merely the mathematical conception of energy. Out of this neutral stuff we make things which have sensible qualities. In real fact, these sensible qualities do not belong to matter as it is in itself or as it is in its ultimate constituents.

The scientific theory of matter is no doubt valuable in its own way. It seeks to go beyond the appearances to the reality. But its starting point is clearly sensible appearance, and it is not able to shake it off even in the subtlest conception of matter it is able to envisage. When we want to analyse matter to its ultimate constituents, we still carry our sensuousness in all our conceptions. We cannot wholly abstract from this sensuousness and have any meaning for matter. The truth is that the particles of energy, the ultimate constituents of matter, still retain in thought their sensible character and have meaning for us only as they have that character. They continue to be perceivable in principle. If we completely abstract from sense, matter as such collapses in all its forms. Non-sensible matter is a contradiction in terms. We must retain our definition of matter as what is essentially sensible.

It is sometimes argued by philosophers that we do not sense a thing as such. We sense some aspect of it. Out of these several aspects or sense-data, we *construct* the thing. The thing is our construction. We directly perceive a sense-datum. Once we have combined these sense-data into a thing, we can infer from a given sense-datum other sense-data which are associated with it in the conception of the thing. This view will clearly be repudiated by common-sense. Common-sense does not know of sense-data, but only of things. It does not know a patch of colour as such, but only something that is coloured. It knows either a thing with its qualities or it knows certain qualities which it refers to a thing. The notion of substance is fundamental to it.

The empiricists now argue that the language of substance and quality is not correct. It has unnecessary metaphysical implications. What we call a thing or substance, such as a chair, is our construction. 'Chair' is a mere name for a collection of sense-data. What we perceive is a sense-datum. It has no *reserve of being* and it has no *qualities*. A sense-datum is 'all that we perceive at a particular time'. It has therefore no distinction of substance and quality. It is not substance with a reserve of being; and it does not inhere in, or belong to, something else. It is in this sense a neutral entity. It is neutral as between substance and quality. But it is defined by a 'sensing'. It is what is sensed. We may call it a *sensum*. It becomes a *datum* when it is actually sensed.

If we accept this analysis, *sensum* becomes something real. It is out there before we sense it. This safeguards the *reality* of what we perceive and the *truth* of our knowledge. At this level of sense-acquaintance, there is no room for *error*. We are not interpreting anything, imagining anything or inferring anything, —we are simply sensing or cognising. It is a species of knowledge on which both common-sense and science must proceed. Common-sense will construct things which we are said to perceive. Science will infer something which cannot be perceived, but which co-ordinates certain finer sense-experiences, such as lines in a spectroscopy. Electrons, protons, etc., are these scientific entities. They are pure hypotheses. They cannot be verified by any number of perceptions. There are simply no perceptions appropriate to them.

This view has the advantage of providing a basis of truth both for common-sense and science. We have a primary sense-aware-

ness that at least is true. Now there are two different and recognised ways of looking at things, and we must decide whether our awareness of sense-data conforms to the one or to the other. (a) There is a way in which the subject is active. I imagine a thing, and the image is as I imagine it. I ideate a thing, and the idea is as I ideate it. The image and the idea are absolutely fixed by subjective activity, and I can be subjectively sure what exactly the image or the idea is. Are we subjectively sure of the sense-datum just in the same way? Some would say, certainly; a sense-datum is just as it is sensed, no more and no less. But then it can have this absolute certainty, only if it is subjectively fixed just like an image or an idea. An image or an idea is the very limit of absolute subjective certainty, for either of them is subjectively determined. *Anything less in subjective determination will to that very extent be less in subjective certainty.* A sense-datum must therefore be ontologically of the same status as an image or an idea—or it will be lacking in absolute subjective certainty. Are we prepared to say that there is some deficiency or doubt in our knowledge of a sense-datum? If there is, that would indicate subjective interference in the knowledge of something that is not subjective. We are thus on the horns of a dilemma. Either absolute certainty (in which case a sense-datum is no better than an image or an idea or a pure subjective construction), or some room for doubt (in which case it is indeed a case of *knowledge*, but not absolutely true knowledge). Which alternative do we prefer?

(b) This brings us to the second way of looking at things. In any genuine case of knowledge, we have the function of both sense and understanding. Sensation puts us in contact with reality, understanding determines that reality in thought. Here it is evident that our knowledge is mediated. The simplest form of knowledge is the perceptual judgment. *But judgment can always be erroneous.* No judgment is ever self-evidently true. It requires validation through some other judgment or judgments; and this process of validation can never be complete. In the end, every judgment is accepted for practical reasons, not on strict theoretical grounds. All judgments *can* be delusive. The truth is that where reality is subjectively determined, literal truth is not available. Does our acquaintance with a sense-datum conform to this pattern of knowledge? In that case, it is a genuine case of knowledge, but it cannot be literally true knowledge. All knowledge of sensible objects is judgmental. Judgmental knowledge

claims to be true, but the claim cannot be unconditionally conceded. False judgments are a fact; and judgments which are not known to be false have their truth-claim open to question. Every judgment is ridden by subjective elements. It is a form of interpretation put upon reality. There is no original, primary and direct awareness by which this interpretation could be checked. It can never give us absolute certainty of knowledge. It is invariably knowledge dominated by doubt; and doubt merely indicates the subjectivity, and so the erroneousness, of knowledge.

Our awareness of a sense-datum then is either no case of knowledge or it is a case of knowledge that is in strict epistemological terms erroneous. The theory of sense-data seeks to avoid the difficulties of a judgmental theory of knowledge, but succeeds only in reducing sense-data to mental entities or ideas of the idealistic school. We simply cannot combine objectivity of knowledge of sense-data with their truth. There is only one species of objective knowledge, and that is judgmental knowledge. There is no such thing as knowledge by simple acquaintance which is necessarily true. We must therefore throw out the theory of sense-data, and return to the things of common-sense. These things are substances, having sensible qualities. What we perceive is the thing with its qualities. All qualities are universals. They can never be *known* in their own right; they can only be *conceived*. In their own right, they are not self-subsisting objects. They are only known as *belonging* to a substance. It is substance alone that really exists and is a possible object of knowledge in its own right. The time-old custom of thinking in terms of substance and its qualities is quite unavoidable for knowledge.

Plato's ideas are, from this point of view, not fit objects of knowledge at all. Their certainty is the certainty of all mere ideas, which are fixed by the ideating mind. It is not the certainty of knowledge, which necessarily refers to a self-existing substantial reality, which can never be exhausted by any subjective determinations of it. Reality is always more than what we can know of it through its qualities and its relations, and no mere idea can answer this requirement. An idea is a universal, which is no more and no less than what we actually think or ideate. The fixity and the completeness of it is subjective, not objective. An idea cannot exist in the air or in a super-sensible realm, but only in a mind that thinks it.

Our analysis of knowledge has brought us face to face with the problem of substance and quality. We do not consider this problem insoluble. Substance occupies the place of Absolute Reality or the thing-in-itself. Qualities and relations are universals. They are therefore subjective. They determine the substance; but all these determinations are subjective. They do not really belong to the thing. What then is the thing or the substance apart from all its determinations? We make bold to say that it is the indeterminate. The indeterminate cannot be individualised or particularised except through the determinations which do not belong to it and which are only falsely attributed to it. This means that there cannot be *many* real substances, but only *one* Substance. The many substances are in this sense no more than subjective creations. Why should God alone create a world of many things? We contend that the individual does, as a matter of fact, create such a world for himself. Each individual lives in his own world, which he alone has created. There is no universal world or common world, except through a subjective acceptance, which proves absolutely nothing about reality or objectivity in an ultimate sense. We all do this in dreams. The world is my dream and my creation.

What now is the relation between substance and its qualities? There can evidently be no real relation between them as between supposedly two substances. Qualities do not exist in themselves. They can therefore only be related to substance through false identification or superimposition. No substance has ever any real qualities of its own, but only false or fictitious ones. Since all our knowledge of substance is through its qualities and relations, we can conclude that all our knowledge is so far illusory. Common-sense here has to be corrected by philosophical analysis.

It will now be said that no amount of philosophical analysis can explain away the real objectivity of matter. Matter has a constitution of its own. In this respect, science supports common-sense. Matter behaves as science expects it to behave on the basis of its study of the inner constitution of matter. Atom bombs and hydrogen bombs are the products of this study. The reality of matter as some kind of substance with properties of its own, and existing independently of every subject, cannot be denied. The world of matter is a real objective world in a very literal sense.

It must at once be understood here that philosophy does not deny any facts. All matter behaves in a certain way, and that is why scientific laws are necessary in order to understand this behaviour. Matter is in that sense objective and the subject-matter of theoretical consciousness. We may by all means believe all that science and common-sense accept about the world. All that we have to say is that it is the stand of the unreflective consciousness. Philosophy is nothing if it is not *pure reflection*. After all that we have said and after all that we have admitted, a problem is left over for philosophy. It is the problem of the *truth* of any piece of scientific knowledge. This problem can only be resolved on the basis of cognitive certainty, not on the basis of any practical considerations. It is only a weak mind, in a rational sense, that will decide theoretical questions on practical grounds. A true philosopher is theoretically incorruptible. He will not change his mind about the dubitability of a piece of knowledge, simply because he is overwhelmed by certain physical effects produced by matter. There is also for him a life beyond the body. That is truer than life in the body. Truth must be determined on its own internal self-evidence.

By this criterion everything about our knowledge of matter is dubitable. Every part of it can be shown to be subjective. Sensible qualities or sense-data are subjective, determined by 'sensing'. The categories of Kant through which we order these sense-data are all subjective. Every judgment is subjective. Even the laws of nature are subjectively conceived. Different formulations of these laws are always possible. There is no objective certainty anywhere here. What passes for that is subjective affirmation or just belief, not real knowledge. Science does not give us *certain knowledge* which philosophy seeks. Philosophy is obliged to pronounce it as subjectively determined, dubitable and false. It is the high standard of philosophical truth or 'knowledge which literally reveals reality as it is in itself' that condemns scientific knowledge.

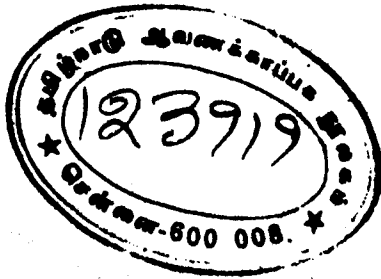
It must be noted here that peculiarities or differences of things are not denied. Without these peculiarities, there would be no scientific problem and no laws of nature. Philosophy has nothing to add to, or detract from, science. Its problem just begins when we have already settled that something is *objective fact*. Let the objectivity be carried as far as it could be carried. Philosophical criticism steps in only when this objectivity has been accepted.

We shall find that everything objective is essentially relative. What is relative cannot be *in itself*. It has a dependent reality only; and a *dependent reality* is a contradiction in terms. A dependent reality has reality in 'another'. Why not say that it is illusory in character, while that which it depends on is the reality underlying it?

There are several different forms of relativity which we find in things constituting the world. (1) Something is born. The cause of its birth naturally lies beyond it. This cause is the reality. If the world as a whole is a series of effects, its reality cannot lie in it. Its reality can only lie in a transcendent cause, if there is any such thing. A transcendent cause is cause only, never an effect. Buddhism accepted no transcendent cause, but it reduced the world to *śunya*, which was certainly transcendent for it. (2) Whatever the entity taken to be objective, its nature has a necessary reference to what is different from it and constitutes its very negation. To say that something is *x* is to say that it is different from *not-x*. Any conceptual determination whatsoever differentiates the thing to which it belongs from other things. These latter are therefore essential to the realization of its own nature as a distinct something. This relativity of nature of all things was also recognised by the Buddhists when they condemned the world as unreal and substituted their *śunya* for it. (3) Advaita goes farther. Anything that is objective fact is relative to the subject. It realizes its nature only in this relation. If this relation is subtracted, the object would collapse and be as good as nothing. Here, in the notion of the intelligent subject or self, we are directly given a different kind of reality, which is essentially non-objective, on which the whole world of objects may be said to depend. We need not go to *śunya-vāda*. (4) To these three forms of relativity, Advaitism adds one more reason for rejecting the reality of the world of objects. Perceptually, all objects are *like* illusory objects. There is no difference either in the method of knowledge or in the nature of the internal evidence. For all these reasons the empirical world must be transcended. It is false.

It is the business of philosophy to sift the true from the false. If something is false, it must have for its ground the true or the real. No object of any knowledge can be all falsehood. It is always a mixture of truth and falsehood. If we can discerningly sift this mixture, we can get at the truth. We may call it by

different names,—noumena, satā (pure being), Brahman, etc. But it will always be there. It will necessarily be a super-sensible or metaphysical reality in contrast with the empirical and the sensible which is rejected. If we could know it adequately or fully, so that no question or doubt is left about it, that would satisfy the very ideal of knowledge. That is the claim of philosophy as *adhyātmic vidya*. Science will continue as a theoretical understanding of the world for practical purposes. But it cannot peer into the mystery of being or of ultimate reality. Philosophy claims to do that. It is rightly therefore the crown of all sciences. It is the only instrument for awakening our pure intellect to the highest metaphysical truth in a way that can be labelled as 'seeing the truth face to face'.



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