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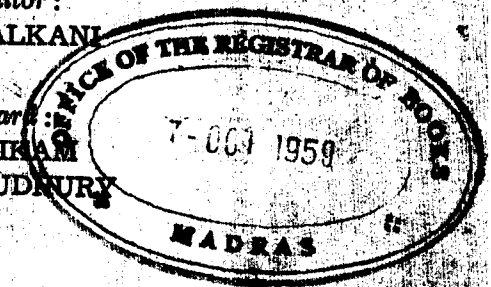
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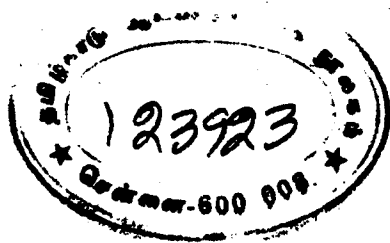
CONTENTS

Meaning of 'Good' and the Conditions of Good Life by G. N. Mathrani ..	139
A Meditation on Philosophical Methods by K. Satchida- nanda Murty ..	153
Philosophy as a Historical Phenomenon by S. Vahiduddin ..	167
Concepts of Meaning and Understanding in New Physics by Pravas Jivan Chaudhury ..	173
The Emotive Theory of Truth by Sibapada Chakravarty ..	191
Linguistic Analysis and the Ideal Language Method by A. Lakshmana Rao ..	199
Book Review ..	209
Books Received ..	219

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THE

PHILOSOPHICAL QUARTERLY

Vol. XXXII, No. 3]

[October, 1959

"Meaning of 'Good' and the Conditions of Good Life"

by

G. N. MATHRANI

Part I: Meaning of 'Good'

Section I—Meaning of 'Good' according to Hume

Hume defines 'Good' and 'Bad' in terms of general approval and disapproval. According to Hume "there is a certain specific kind of emotion which nearly all human beings feel from time to time. This is the emotion of approval or disapproval. It is called forth by the contemplation of certain objects and it is directed towards those objects". "For Hume the statement 'X is good' means the same as the statement 'X is such that the contemplation of it would call forth an emotion of approval towards it in all or most men. The definition of 'X is bad' would be the same with 'disapproval' substituted for 'approval' ". (Taken from Prof. C. D. Broad).

The following general remarks may be made about Hume's view regarding the meaning of 'good'. (1) The feeling or emotion of approval or disapproval itself requires a basis and needs to be explained. Generally our emotions of approval and disapproval are conditioned by some implicitly presupposed standards of judgement. It may be that our felt emotions of approval and disapproval make us conscious of our implicit standards, only when controversies are raised.

William M'cdougall has pointed out that the emotion of approval, as the essence of moral experience, is of two types, original

and derived. According to him, the derived emotion of approval is determined by the sentiment or attitude of admiration for certain qualities or persons. Whatever exemplifies what we admire will tend to evoke a feeling of approval in us. He further says that our admiration for others is ultimately determined by the character of the dominating instincts in us. Original emotion of approval also, according to him, is determined by the character of our dominant instincts.

To M'cdougall's explanation, our reply will be that it does not accord with facts. It has been observed that sometimes we do not admire familiar qualities in others, that is, qualities which we ourselves possess in lesser degree. Instead we admire qualities which we do not possess in any measure and for which we do not possess the instinctive disposition either. The causal connection which M'cdougall seems to postulate between instincts and admiration or between instincts and original feeling of approval does not seem to be based on psychological facts. It would be more true to say that we admire and approve those qualities in others, which appear to be desirable. (2) As a definition, Hume's definition of 'good' should be convertible per simple. It should be possible to admit that 'good' is 'all that evokes general approval' and conversely 'all that evokes general approval' is 'good'. Same should be possible to say about their negatives. But I do not think it would be possible to maintain that all that evokes a feeling of disapproval in most minds is morally bad or wrong. For example, unclean dress on a person sitting or standing close to us may tend to evoke a feeling of disapproval in us; but unclean appearance cannot be characterised as something sinful or morally wrong. It cannot even be maintained that all that evokes a general feeling of approval could be characterised as good and right. In short, convertibility of Hume's definition of 'good' and 'bad' is of doubtful value. (3) It would be difficult to explain the moral experience of a hero in terms of Hume's definition of 'good'. In the context of the moral experience of a hero 'good' cannot mean 'that which evokes a feeling of general approval'. The moral hero does not experience the emotion of approval for the objects and activities which tend to evoke a general feeling of approval and accordingly he defies the socially approved standards of conduct; and yet afterwards the society comes to accept him for the very conduct for which he was previously persecuted. Applying Hume's definition of 'good' to the conduct of a victorious moral hero, we have to say that his conduct was not good but is now thought to have

been good. Obviously such a statement would be self-contradictory.

Section II:—Meaning of 'good' in some of the traditional ethical theories

(i) *'Good' as a causal property*: — "The good is whatever produces pleasure". This is a general formula of hedonistic Ethics. Such a definition of 'good' implies that 'good' is a causal property. It may be pointed out that this definition seems to be circular. When analysed, it would amount to 'good is that which produces good'. By presupposing that pleasure alone is good, it becomes possible to define 'good' as 'that which produces pleasure'. But what does it mean to say that pleasure is good or that pleasure alone is good? Sometimes ethical hedonists identify 'good' with 'pleasant'. If 'good' means 'pleasant', to say that pleasure is good amounts to a tautology. Moreover, in the moral consciousness of the common man, 'good' and 'pleasant' are not convertible. Very often, in the pursuit of the good, one has to forego the pleasant.

More frequently, in the field of Hedonistic Ethics, 'good' is identified with 'desirable'. Mill, being committed to the cult of Empiricism, tried to give an empirical meaning of 'desirable'. Mill reduced 'desirable' to 'that which can be an object of desire'. This also was against the logic of commonsense thought and speech. "The moral consciousness of the common man distinguishes between the desires that ought to be expressed in action and those which in a given situation ought to be suppressed." (D. M. Edward). Mill was misled by the syntactical similarity between 'desirable', 'audible' and 'visible'. He said 'audible is that which can be heard, visible is that which can be seen. Therefore desirable is that which can be desired'.

Sidgwick, however, conceived 'desirable' as 'reasonable'. According to Sidgwick, "when we sit down in a cool hour, we perceive that there is nothing which it is reasonable to seek — i.e. nothing which is desirable in itself — except pleasure". Thus, according to him, 'good' means 'desirable' and 'desirable' means 'reasonable'. Only, according to him, Reason is in favour of pleasure.

(ii) *'Good' as a functional property*: — Butler's definition of 'Virtue' (Virtue consists in acting in accordance with ideal human nature) seems to presuppose the notion of 'good' as a functional property. According to Butler, more a man has attained the ideal

human nature, more virtuously he would tend to behave. Good in that context would be an effect and not a cause. Virtue emanates from the operation of the ideal human nature. According to Butler, when a man has organised his impulses under the rational principles or tendencies of enlightened self-love and benevolence, and when he has developed a conscience to regulate and maintain a harmonious coordination between the operations and activities of his rational tendencies of self-love and benevolence,—in short, when he has developed or attained ideal human nature,—he will tend to act rightly and virtuously.

Butler's theory of 'good' also seems to be circular. It implies the circular definition that 'good' is 'that which is produced by good'. In this theory, goodness of good or virtuous actions is derived from the goodness of the character (ideal human nature) which is their chief cause or source. In his development of the concept of 'the ideal human nature', he seems to identify 'good' with 'rational'. He conceives ideal human nature in terms of the rational control of the natural human propensities. But Reason, according to Butler, does not create from within itself the concept of 'ideal human nature', it constructs or derives it from a reflective analysis of the various kinds of human propensities, as a zoologist may derive the concept of perfect horse from his observations of actual horses. Sidgwick, on the other hand, seems to imply that Reason can form an *a priori* concept of 'good'.

(iii) *'Good' as a structural property*: — There is also a view that 'good' is a structural property of actions, like any sensible (sense-perceived) quality of things, such as blue and red. Just as sense-perceived qualities are believed, by common sense, to be objective and inherent qualities of things, similarly 'good' is said to be an objective and inherent quality of actions judged to be good.

This view is based on three main arguments. Firstly, it is said that goodness or moral worth of an action is absolutely independent of the situation or context in which it takes place. For example, courage is good, whatever be the situation in which it may be displayed. Secondly, it is said that goodness of an action is judged independently of the nature of the consequences it may lead to or the causes which may have brought it about. Thirdly, it is said that just as a pencil can be red even if nobody knows it to be red, similarly an action can be good even if nobody takes notice of it and judges it to be good.

'Good' as a structural property of actions is said to be unanalysable, though discernible and applicable. Some such theory is attributed to Prof. G. E. Moore. In some modified form, it may also be attributed to Kant.

It may be pointed out, in opposition to this theory, that generally goodness or moral excellence of an action is judged in the light of the other constituents of the situation in which it takes place. Same action performed in one situation may not be condemned as much as when it is performed in some other situation. Consequences and causes of an action constitute a part of the total situation and as such goodness of an action is partly dependent on its causes and consequences also. The third argument in the above paragraph may be accepted to be valid, but that by itself cannot prove that 'good' refers to a structural property of actions.

Section III : — A primary meaning of 'good'.

There is a more primary notion according to which an action is said to be good and right if it appears to be the most fitting, appropriate and reasonable course of action in the total given situation. According to this meaning, 'good' refers to a unique relation of fittingness between the action and all other factors in the total situation, apprehended by dispassionate and emancipated Reason. This meaning of 'good' includes the notions of 'good' as causal property and 'good' as a functional property. According to the notion of 'good' as a causal property, goodness of an action is judged in the light of the nature of its consequences. According to the notion of 'good' as a functional property, goodness of an action is judged in the light of the psychological genesis of the action. The consequences and the internal psychological causes of a given action constitute a part of its total situation. The above mentioned primary notion of 'good' implies that the entire situation, including the motives and the consequences of a given action, is taken into account while judging the worth of that action. Obviously, therefore, the other two theories may be said to be included in it.

Some writers draw a distinction between 'good' and 'right'. According to them, 'good' is a property of a given action, while 'right' is a relation of fittingness, as explained above. In the previous section, we have given our reasons for rejecting the notion of 'good' as a structural property; and, in the above paragraph of the present section, we have stated our reasons for believing that the notion of 'good' as 'a relation of fittingness' includes the notions

of 'good' as a causal and functional property. For such reasons 'good' and 'right' are taken as synonyms for 'moral worth'.

The present writer is inclined to accept this notion of 'good'. Critics may point out that this notion of 'good' is difficult to be distinguished from the notion of 'truth'. If 'good' implies conformity with the verdict of Reason, 'truth' also implies conformity with the verdict of Reason. How then are the two different? 'Truth' in a sense is more objective than 'good'. 'Truth' refers to objective facts, while 'good' refers to an ideal. Truth of a proposition implies correspondence with facts, while the goodness of an action implies the relation of fittingness, apprehended by Reason. The relation of fittingness which constitutes the goodness of a given action is not an objective relation like space and time relations which, in a sense, are empirically discernible. Yet it has a sort of subjective-objectivity, in-as-much as the dispassionate and emancipated Reason, operating in all the mature minds, discerns it uniformly. In the absence of empirical objectivity it may be characterised as a non-empirical idea.

Section IV: — Further scrutiny of the Empiricist meaning of 'good'

From the Empiricist point of view the so-called rational act of intuiting the relation of fittingness or appropriateness between a given action and the rest of the total situation is merely a belief or an expectation that the contemplation of such an action in such a situation would evoke a feeling of general approval. If the action judged to be good and right is in contradiction to the expressed approval of society, the judgment 'X is good' will be said to refer to the feeling of approval independently felt by the person making the judgment.

This controversy can be resolved by analysing the mental act of approval. Is the act of approval an emotion or an intellectual assent? Generally every felt emotion impels the individual concerned to act, whereas sometime we pass moral judgements without feeling any impulsion within us to act in accordance with those judgements. Moral evaluation can be as cool and unemotional as mathematical calculation, and also like mathematical calculation it can be purely theoretical, without resulting in any action or in a desire for action. This could be the character not only of the acts of derived approval, but also of the original and independent approval.

Emotional experience may be a frequent accompaniment or even a constituent; but it cannot be the essence of moral experience. In essence, moral experience is of the nature of thought. But it has to be admitted that in the absence of an appropriate moral emotion it will be difficult to execute or carry out a moral action. Possibly for this reason, Hume has failed to distinguish the thought element and the feeling element in moral experience.

In one place, Hume says "The end of all moral speculations is to teach us our duty; and, by proper representations of the deformity of vice and beauty of virtue, beget correspondent habits, and engage us to avoid the one and embrace the other. But is this ever to be expected from inferences and conclusions of the understanding, which of themselves have no hold of the affections nor set in motion the active powers of men? They discover truths: but where the truths which they discover are indifferent and beget no desire or aversion, they can have no influence on conduct and behaviour." In this passage, Hume rightly points out that Reason or Understanding cannot inspire habits of moral conduct, because it discovers truths without the appropriate emotions to accompany the intellectual cognitions. Later on, in the same section, he states "... that reason and sentiment concur in almost all moral determinations and conclusions". This point also could be admitted. But then he goes on to say, "The final sentence which pronounces characters and actions amiable or odious, praise-worthy or blameable... depends on some internal sense or feeling, which nature has made universal in the whole species". (In the succeeding sentences Hume makes it clear that by 'internal sense or feeling', he means 'sentiment'). Here it becomes obvious that he does not want to attribute recognition of moral worth to Reason. Possibly because, to him, moral experience that does not lead to moral action is no moral experience.

Dr. C. D. Broad also points out that Hume "has failed to draw an absolutely essential distinction between the faculty which recognises right or wrong, and the disposition through which their recognition affects our actions". He further says, "It is clear that these are distinct, however closely they may in fact be correlated in all human beings". (Quoted from his class-lectures.)

There is another special reason which prevented Hume from admitting Reason to be the faculty for recognising right and wrong. Recognition of right and wrong cannot be brought under any of the empirical functions of Reason. The alleged empirical functions

of Reason relate to the analysis and interpretation of facts, on the inductive lines. This is dogmatic Empiricism which is against the very spirit of scientific thinking. Introspective analysis of moral experience clearly reveals moral judgement as something distinct and over and above the accompanying moral emotion; and yet the Empiricist philosopher will not admit it, because he cannot integrate it with his concept of Reason. This clearly indicates that the empiricist concept of Reason is simply a presupposition and not a product of a positive analysis of the activities of Reason.

Section V: — Rational Mathematical Ethics.

The view maintained in this paper is distinct from the traditional and the prevailing rationalist account of Ethics also. Our thesis is that in the context of a given set of circumstances it is possible for the dispassionate and emancipated Reason to judge a certain action to be the most fitting and reasonable. It is further maintained that the general rules of moral conduct or the principles of morality could be of the nature of inductive generalisations from particular verdicts of Reason about particular actions in particular situations. The rationalists would maintain that Reason could directly intuit the universal principles of morality, like the mathematical axioms, and that the particular actions could be judged in the light of some such universal principle. This may be named as the mathematical interpretation of Ethics.

From our standpoint, not to be able to judge directly a given action in a given situation, without co-relating it to some universal principle of conduct, is like walking with the help of crutches. A man who has strong legs does not require crutches to walk, similarly a man who has developed a powerful and dispassionate Reason does not require any moral rules to judge particular actions. Moral rules may be framed for the general guidance of the lesser minds. Since most of the people have not reached the level of the dispassionate and emancipated Reason, moral rules would be useful and necessary to maintain uniformity of judgement.

It is possible that, during the historical process of the moral evolution of individuals and communities, some of the general rules of moral conduct may have evolved as inductive generalisations from the day to day moral experience or the ought-awareness felt in the various particular situations of life. But it is certain that Reason cannot directly intuit the truth-value of the general rules of moral conduct in the sense in which it can directly intuit the

rightness of a particular action in a particular situation. General rules of morality are either inductive generalisations, from concrete moral experience, or social customs or scriptural injunctions; but they cannot be direct rational intuitions.

John Locke conceived the possibility of developing a mathematical science of Ethics. He thought it was possible to build up a system of Ethics in which all the ethical rules would be necessary truths, either of the nature of mathematical axioms or of the nature of the implications of axioms.

Locke's mathematical conception of Ethics brings out two commonly accepted true characteristics of ethical knowledge, (i) that ethical propositions primarily relate to intellectual cognitions and not to feelings or emotions, (ii) that ethical knowledge is attained through Reason and not through, what Hume calls, "sentiment." So far we agree with Locke.

Locke also maintains that the general rules of morality are apriori and necessary, whereas our thesis implies that moral rules are partly inductive in character and relative and tentative in truth value. That ethical rules possess relative truth value is an ancient belief. It is possible that this characteristic of ethical rules has misled the positivists to reduce moral experience to the subjective and variable experience of the emotion of approval.

Section VI: — Positivist-Mathematical-Ethics

According to one circle of positivists, ethical concepts are similar to mathematical concepts; but, for them, mathematical concepts are 'hard symbols', words which do not denote any objects or connote any ideas. They are just words which do not mean anything and yet they are capable of some functional operations, because there are rules of their usage. Each mathematical symbol has a functional status in a system of symbols in which its functional operations are governed by a set of rules, known as mathematical truths. In short, mathematical concepts are empty symbols and mathematical truths or propositions are the rules of the grammar of the symbols.

From their standpoint, value terms and propositions neither relate to feelings nor to intellectual cognitions. They are only verbal symbols whose functional operations are governed by certain rules of usage.

The present writer has analysed this view in one of his earlier papers on 'A positivist characterisation of values'. It has been pointed out there that the mathematical positivists' denial of the intellectual character and content of the value-terms is based on their denial of abstract ideas and their denial of abstract ideas is sustained by a wrong notion about the meaning of 'idea'. They wrongly identify 'idea' with 'mental picture'. Since no mental pictures exactly corresponding to the meaning of abstract terms can be constructed in the mind, it is concluded that there are no abstract ideas corresponding to abstract words, and that their only meaning is their verbal use. In that paper it has been further pointed out by the present author that the mathematical positivists may have been misled by the grammatical character of the word 'idea'. Grammatically 'idea' is a noun. So the positivists try to discover mental entities corresponding to idea-words. Really speaking, ideas refer to mental activities and not to mental entities.

Conclusion:—The present writer still holds that moral experience, expressed through ethical propositions, is a species of 'irreducible non-empirical intellectual experience'. In other words, the primary ethical terms and propositions relate to non-empirical ideas and cognitions and not to mere feelings or emotions, as the Empiricists believe; nor to mere words, as some of the mathematical positivists of Cambridge seem to believe. It may be pointed out once again that the interpretation of Ethical knowledge, maintained in this paper, is, in some important respects, different from that of the rationalist-Ethicists also. We claim that the universal principles of conduct are inductive generalisations from concrete moral experience, whereas the rationalist would claim to have direct rational intuition of the universal principles of morality.

The present writer humbly claims to be a positivist. But, to appreciate the positivist standpoint maintained in this paper, it is necessary to distinguish the two types of Positivist trends, i) the dogmatic Empiricist Positivism and ii) the enlightened Logical Positivism based on the Wittgensteinian method of analysis. It is a principle with Empiricist Positivists either to reject a philosophical concept or a proposition as non-sense or to reduce it to a form of empirical experience. Whereas Logical Positivism based on the Wittgensteinian method of analysis takes its stand on the Logic of the common man's Thought and Speech. Wittgenstein's general instruction was to derive the meaning of a concept from

its rules of grammar (conventions regarding its usage) embedded and embodied in the Logic of the common man's Thought and Speech. According to Wittgenstein, rules of grammar and not the methods of verification determined the meaning and significance of verbal symbols.

In this paper (part I), an attempt has been made to discover the meaning of 'good', as presupposed in the common man's Thought and Speech. As such, the view maintained in this paper may be claimed to be positivist in character, though it implies that 'good' refers to a non-empirical idea. The philosopher, who professes the analysis of the common man's language to be his method, has either to accept the rules of language or to reform the rules of language; but at no cost can he defy the rules of language. The analyst-positivist is not committed to the creed of Empiricism.

Part II: Conditions of good life

(i) In the process of the evolution of the human race and the individual, emergence of Reason is a post-instinct phenomenon. Consequently the conception of 'good life' as 'an activity of dispassionate Reason' implies the fulfilment and not the negation or rejection of the basic instinctual urges of man. There is a false notion prevailing that moral life is the anti-thesis of instinctual life, that instincts and Reason cannot go together. This false notion is associated with some of the traditional rationalist views about Ethics and moral life. *Human mind can develop a dispassionate Reason only when its primary passions are gratified.* At the same time, an environmental set up in which the human passions constantly tend to be excited will not be conducive to the development and activity of dispassionate Reason.

(ii) Democratisation of education also is a necessary condition for the development of dispassionate Reason. In the present context, democratisation of education refers to two principles, i) that education should be such that the educand may develop the intellectual tendency of open-mindedness, that is, the disposition to consider any opinion or belief without any bias against it. This is sometimes called 'intellectual emancipation' of the mind, ii) that 'self-study' should constitute an important part of education. 'Self-study' implies that the educand should learn to discover knowledge by his own efforts and that he should develop the power to arrive at an independent opinion and judgment about the matters that concern him and the problems that interest him,

Democratisation of education, in the afore-said sense, relates to the training in the exercise of free and independent thinking. This would be possible only in a democratic society. Thus 'good life' as 'a persistent effort to act in conformity with the verdict of dispassionate Reason' presupposes democracy as a necessary environmental condition.

(iii) If 'good' in Ethics implies 'conformity with the verdict of dispassionate Reason', 'Democracy' in Social philosophy can only mean 'Reign of dispassionate Reason in Society'. Ordinarily 'Democracy' stands for 'Rule of the Majority'. If in any democracy the parliamentary activities are conditioned by passions and prejudices, rule of the majority will prove to be a brute rule of the majority, and not a rule of the majority by Reason. Such a rule will prove to be a tyranny for the minorities. Democracy, as a reign of Reason, will be possible through a parliament which consists of intellectual adults. In such a parliament absence of party divisions will make the collective deliberations more fully expressive of the dispassionate Reason of the participants. But in most of the so-called democracies parliaments mostly consist of intellectual adolescents and not adults.

(iv) Democracy, as a reign of Reason, cannot be tied down to any creed or dogma, political or otherwise. As such, the only aim of the parliamentary deliberations should be to arrive at the most reasonable solutions of the issues in hand, keeping in view the limitations of the situations which have a bearing on them, and without being tied to any principle of a creed. Democracy, as a reign of Reason, cannot admit anything to be irrevocable and unchangeable. Even the constitution cannot be looked upon as something sacro-sanct which cannot be changed and modified.

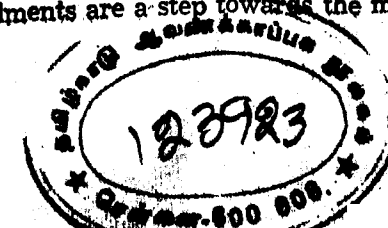
(v) The modern industrial civilization has created conditions which tend to make the ideal of good life increasingly difficult of practice. Mechanisation of the methods of production and large scale production of the goods of life constitute one important layer of the basis of this industrial civilization. Mechanization of work touches almost all the spheres of activity of the modern man. The modern man lives in the Press-button civilization. In the primitive times man did the work of the beast and the machine, whereas in the present age even the most intelligent activities can be carried out through press-button devices. In the modern man's life the scope for the direct exercise of the manipulative

and creative intelligence is increasingly being reduced to the absolute minimum.

(vi) Every act of intuiting the rightness of an action, as explained in part I of this paper, is to be preceded by a factual study of the situation in which the given action is one of the constituents. This requires an active development of intelligence. But if the intelligence is put into the state of inactivity, Reason's power of moral intuition also may not act rightly. Thus an extensive mechanisation of the daily activities of life very likely may result in the loss of the power of moral apprehension.

(vii) This increasingly extensive mechanisation of life is to be found in the large industrial and commercial cities which are a necessary part of the modern industrial civilization. Besides the extensive mechanisation of work, noise, crowds and swift motion of men and things characterise the life in the modern industrial and commercial cities. Such conditions of existence are not suitable for human nature. They are likely to cause nervous and emotional disorders; whereas Reason, which is the highest faculty of the human mind, requires for its full and free activity nervous and emotional stability of a pretty high order. In some of the large industrial cities of the advanced countries in the West, nervous and mental ailments are becoming an increasingly common phenomenon.

(viii) Looking at it from another side, it may be pointed out that the development of dispassionate and emancipated Reason, which is the basis of good life, is possible in and through the fulfilment and conquest of the major instincts. Fulfilment of instincts is possible through the canalisation of instincts. Conquest of instincts is possible through the sublimation of instincts. Canalisation and sublimation of instincts are possible through the formation of suitable sentiments. The formation of lasting and deep-rooted sentiments requires a permanently organised group life, as the social environment. But, in the large industrial cities, disorganised heterogeneous crowds of strangers constitute a large part of the social environment for the common man. In such environment the social responses to the various social stimuli are more likely to be conditioned by the operation of the primitive instincts than by the operation of the culture-born sentiments. The result is that, inspite of any number of cultural influences operating in the city life, the city people do not develop permanent and strong sentiments. Sentiments are a step towards the matura-



tion and active manifestation of Reason. Obstacles to the formation of healthy sentiments will be obstacles to the life of Reason. All these reasons lead to the conclusion that the modern city civilization is not conducive to good life. Where life of Reason is made difficult, democracy, as a reign of Reason, also cannot prevail. If we are to save Reason and Democracy, the modern industrial civilization has to be rationalised, so as to free it from its undesirable consequences which involve the possibilities of dehumanizing the human personality.

A Meditation on Philosophical Methods

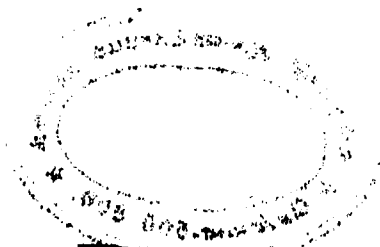
by

DR. K. SATCHIDANANDA MURTY

Andhra University, Waltair

It must be from history that we can learn what philosophy is, for history shows us the change in philosophical objectives and methodological differences in succeeding ages and in the same age from one philosopher to another. Yet, amidst all this change is to be found the function of philosophy in human society and culture. Emerging from man's meditations on his situation and surroundings and sometimes his concern with practical questions, philosophy does not limit its problems. Consideration of the nature, relations and actions of men and things leads to speculation on or discussion about the relations and foundations of knowledge, of values, of statements about all these and of the relevance and relations of actions to these and among themselves. Any attempt to restrict the scope of philosophy to any one of these is futile, because such an attempt itself will have to take into account the subjects which have to be neglected by philosophic activity and explain why they cannot be included in philosophic inquiries and constructions. The thinkers who tried to expel metaphysics with a pitchfork have to their dismay found that the pitchfork itself (viz. the verification principle) is a metaphysical implement.

Men, things, actions and statements as well as the sciences which seek to explain these and the arts that develop and use some of these have formed the subject matter of philosophy. This diversity of material explains why no single method has been employed by philosophy. Reflection on the history of philosophy — which is itself one sort of philosophy, for the rise, growth and impact of philosophies is a 'philosophic' problem — would show that the nature of the method employed determines the nature of the resultant philosophy, and the selection of a particular method is determined by the nature of the problem which interests a particular thinker.



I. One of the earliest methods to be employed in philosophy was that of *definition and development*. This method comes into vogue whenever a man raises the question, what is X?, and answers it by giving an *a priori* definition of X. Thus to define the self as that which is eternal, ever happy, free from sin and change and then to reject the body, the waking, the dream and sleep consciousnesses as the self, because they do not answer to this definition would be an illustration of this method. Or, the Real can be defined as the one, from which everything is born, by which everything is sustained and in which everything finally merges, and which is at the same time the supreme value. Then matter can be rejected as not answering to this definition, because life is a higher value, and the latter should be rejected because thought is a yet higher value. But then thought includes dichotomy, the process of thinking and the object of thought, whereas the Real should be one. Pure Bliss, it may be held, is the highest conceivable value, and unlike thought, in Bliss there is an identity of subject and object. It is out of bliss that beings arise: it is because they find lives to be worth living in spite of all suffering, and because they expect more and more happiness day by day that beings continue to live; and when they die, do not they attain greater and final happiness? For, does it not put an end to all the limitations and misery of this earthly existence? They then attain Bliss. So, the Real is Bliss. These two examples illustrate the method of definition and development. Taking words like "the self", "the Real", and "Substance" and giving *a priori* definitions of them, we can provide ourselves with a set of postulates. Then we can go on to the drawing out of the implications of these postulates, or to a demonstration of the consequences that follow from their acceptance. This kind of activity results in magnificent systems of philosophy, structures which are as imposing as the Euclidean and some of the non-Euclidean systems of geometry.

The impetus to this kind of activity arises from the need to posit the existence of certain things like the soul or the triangle to satisfy human needs, psychological, aesthetic or intellectual. Experience of birth, death, old age, disease, famine and pestilence, loss of near and dear ones and the mutability of things may make one wish that something which is not all these is existing. So the soul, which is not any or all of these, viz. imperfection, mutability, sin and unhappiness, is posited; its existence affirmed and its difference from all these is asserted and demonstrated. Similarly, the interest of Babylonians, Chaldeans and Greeks in symmetrical

plane figures and straight lines led in course of time to the positing of triangles and so forth as hypotheses, and to admit no argument about them but proceed on this basis to demonstrate their conclusions.

It is needless to point out that philosophic activity of this sort is based on the pre-supposition that if one could construct a scheme of basic concepts, which is complete and perfect, the structure of this "logic" and that of reality would be identical.

The development of science makes many people nowadays suspicious of claims to knowledge based on *a priori* definitions. If we, however, remember the objective which gives rise to this sort of philosophy, the nature of the method employed, and how the resultant philosophy cannot and should not be taken as "knowledge" of reality in the same sense in which science is "knowledge" of reality, it seems to me that such a philosophy, like a great poem or a painting, can still be of great value and illuminate much that we know, feel and do. The proper way of pulling down such philosophies is to find out the inconsistencies in the development of ideas from initial concepts and definitions. An empirical refutation of such a system will not prevent some people from still being attracted by its beauty and logical coherence; and insofar as it provides an *aperçu* to look at and take stock of ourselves and our condition, it continues to be useful. A broken lens is better than having no lens.

In support of this method, it could be argued that since some of the best minds in every age have found a satisfaction in the use of it, we may justifiably conclude that in contrast to perception and imagination, mind has an inherent craving to rise above the senses and inferences therefrom. The sciences and sense experience which present phenomena as a vast conglomerate of facts lacking necessary connection stimulate thought to overcome the disjointedness, variety and mutual irrelevance of phenomena by making the contents of the sciences and sense experience conform to its own logical processes. In fact even in science we find the beginning of this tendency. Through classification and formulation of laws and theories, scientific facts lose their original form, namely, that of mere immediate presentations and data, and become shorn of all sensuous character and all that is transient, meaningless and fortuitous. Thus the originally given facts and adventitious data become logically necessary. When this process is carried still further and when we have been able to manufacture notions such

as "Being", "Substance", etc., i.e., ideas which are so general and abstract that they have no remote resemblance to anything sensuous or temporal, and when we are able to express and develop each possible notion and finally connect all such possible notions into a system, we have, according to some thinkers, the ideal philosophy. If anyone says that thought should not be allowed to recast and transmute the phenomenal and transform it into the universal, and that it should not make a passage from the finite and the given to the infinite and the ungiven, he is, it may be said, depriving the right of mind to function according to its own true nature and is not allowing the further development of a method which is followed in the sciences themselves. To understand the world and assimilate the conglomerate of unconnected facts presented by perceptual experience, science manufactures what Darwin has called "intelligible threads", i.e., theories which connect them together and reduce them to an order. "Gravitation", "evolution", "relativity" are all concepts produced with such an intention; and as the replacement of the Ptolemaic by the Copernican system shows, it is not greater conformity to the testimony of senses that makes a scientific theory more acceptable, but its logical simplicity, intelligibility and comprehensiveness. Philosophy, it may be concluded from this, has the right to evolve concepts, define them in the way it thinks fit and then develop the elements involved in each concept.

To seek to criticise philosophies of this type on the grounds of empirical verifiability is like judging a game of tennis in the light of the rules of chess, all the while forgetting that the verification principle is itself not empirically verifiable. To brush off such philosophies as meaningless is to define "meaning" in so narrow a way that only certain sciences alone receive this laudatory title. Like poetry and some non-Euclidean geometries they help us to look at the world and ourselves in a new way, and in the course of this draw our attention to relations, similarities and differences among facts and their implications, which are unrevealed by science and common sense.

II. Another well-known method of philosophising is what I would like to call *interpersonal thinking*. Taking note of the clash of opposing stand-points and the balance of contradictory theories, one can do either of these two things: (1) after a critical examination all the theories can be rejected, or (2) the oppositions can be reconciled and synthesised in a more inclusive conceptual

construction. While the first method (dealt with in I) is content to mint its own concepts and develop them unconcerned with the possibility of producing and developing a contradictory set of concepts, this method in both its variations essentially depends upon taking into account how other persons have thought or could think, and ends either by rejecting or by reconciling all those differences. The first sort of philosophy (described in I) is a monologue, a meditation in solitude, while the present one is a dialogue, a discussion depending upon the deliberations of more than one person.

This method presupposes the existence of a number of speculations, which can be formulated into a thesis-antithesis form and contemplated in a detached critical manner. Nature, human experience, knowledge, action and history contain so many conflicts and contradictions. It is this which is responsible for the distress, perturbation and anguish of human minds and for the tangle and bondage of theories, as the Buddha put it. By adopting the method of critical detachment, the human mind, as he pointed out, can deliver itself from all inadequate and false ideas and from the passions caused thereby, and thus attain to tranquillity and peace. This negative aspect of interpersonal thinking as a cathartic of understanding, leads to the abandonment of all dogmatism, on the basis of a critical examination of every view taken singly and in combination. This consists in accepting every view as a hypothesis and by drawing out its implications and showing their absurdity, without any intention of establishing the opposite view, or any other view. During the course of the criticism, the principles and procedures acceptable to the holder of the particular hypothesis itself are employed to bring out its self-contradictory nature, without making any assumption as to the validity of these logical procedures. For the purpose of carrying on a discussion, it is enough if both the parties know the principles of the method to be employed and how to employ it; they need not be accepted as valid or real. Critical philosophy which is the result of interpersonal thinking does not give us any new knowledge, but merely elucidates what has been said by others, illuminates certain points at issue and clears up some puzzles, by penetrating to depths, which are not usually noticed. The arguments that are used and the analysis of opposing statements that is carried out to achieve this penetration are like a ladder which we use to climb up to a height and then throw away. Examination and refutation of all possible metaphysical statements show that there is something indefinable,

and that metaphysics tries to define it; and engagement in this activity itself is philosophy and not the reaching of a doctrinal position. To realise that all metaphysics is nonsense, but not negligible nonsense, and to achieve a destruction of *all* metaphysical views ("Sarvadr̥ṣṭiprahāṇa" as Nāgārjuna says) opens out the way to gain an important new insight which permits us to have a verbally inexpressible understanding of what there is.

But then there is another way in which this method can be used. When the basic oppositions, expressed in the oppositions of spirit and matter, being and becoming, eternity and time are brought to light and examined, attempts may be made to discover comprehensive principles which will transcend and reconcile these conflicts and contradictions. The purpose of this method is to see the one-sidedness and limitation of all categories, and then finally to arrive at a comprehensive principle which brings into relation ideas and propositions, which otherwise would be irreconcilable and so unintelligible. In this way it is a sort of dynamic which is able to find an interconnection and interdependence among all things and is able to arrive at a synoptic view of all that is. It is like the aerial survey of a city sprawling chaotically below. All contradictions found in nature, thought and action could be unified by means of one or more comprehensive notions, produced by the pushing of concepts into their opposites by their very inadequacy and oneness, thus leading to their abrogation and then the repatterning of them into a new synthesis. Ideas based on the limited and the finite are thus forced to go beyond themselves and culminate in the Unlimited and the Infinite. Underlying all this is the presupposition that nothing finite or limited can endure or be ultimate, and that only an Idea, which can reveal the basic intelligibility of the universe can be adequate and real.

Here again if the mistake of asserting that what answers to such an Idea is actually existent in the same sense in which particular entities which limit and contradict each other are existing is avoided, a philosophy of this type can give us a vision, which can broaden the partial view-points found in separate disciplines such as science, history, common sense and religion and serve to integrate them all. There is an itching in the human mind for synthesis, for the total intelligibility of all existence as a whole, and this can be mitigated only when logic has refashioned the world to suit its own necessities. A philosophic transformation of the world is not worse than the scientific transformation of it, and both are equally remote from the world of common sense.

III. Another method of philosophising is what may be termed *autonomous self-reflection*. A philosophy must not start, it may be argued, with any pre-supposition, but with the pre-conceptual direct awareness of the individual thinker. All given data, all that is taken for granted in science and human experience must be doubted and questioned. Common sense and science take for granted the existence of ourselves and the world around us. But however obvious this existential belief may appear, it should be reflected upon and accepted only after deliberate examination. In thus suspending existential judgments and meditating on what is actually experienced by an individual thinker, one thing at least is indubitable, namely, the experience of the particular experiencing being. Accordingly, the immediate and pure (i.e. devoid of theoretical interpretation) experience of a self-reflecting being becomes the basis and criterion of philosophy. In embryonic form this method is to be found in the contemplations of some Upanishadic sages, and in a developed form in the writings of Asanga; but it is found in all its detail and clarity in the *Meditations* of Descartes.

449

This method casts doubt on the naive assumption of common sense and the sciences that persons and things exist, and subjects even this to reflection. Anything is acceptable only insofar as it is tested and found valid before the bar of immediate awareness. The stream of pure experience is the basic world, whereas the worlds of common sense and of science become worlds constituted out of it. To take common sense without questioning would be to neglect reflection, whereas to start with the immediate experience of one's own would open out the possibility of establishing or controverting the existence of other minds and hence of common sense. In this kind of meditation, some believe, it is possible to reach the very root of the matter.

The method consists in the discovery of subjective experiences which are basic to all knowledge, and a reconstruction of the world by trying to piece it up from these pure experiences by probing into every belief and finding out the pre-conceptual awareness out of which it has been constituted. By this kind of essay in subjectivity it is hoped that the actual state of affairs and underlying relations are seen adequately, and that Reality is plumbed to its very depths. Such meditation, some philosophers believe, enables us to examine all concepts and principles of knowledge, analyse all experience and see what is at its bottom, inspect all methods

of inquiry, abandon common sense naiveté which takes the world for granted, and arrive at a new way of understanding the world and its problems. When Descartes questioned every proposition in previous philosophies, science and common sense, and doubted whether he, his neighbours and the world existed or not, and undertook a long meditation on the issues involved in the act of so doubting, finding finally an indubitable item of awareness, out of which he recreated all that he earlier doubted and demolished, he produced no new knowledge, but helped to throw some sort of light on the foundations of all knowledge and enabled us to have a new perspective for understanding ourselves and the world and the relation between the two.

We wish to comment that if the presuppositions of this method are remembered and if its objectives are kept in mind, the result of its application would be a philosophy, conducive to the liberation of mind from the naiveté of common sense and science and from some of the puzzles to which they lead.

IV. There is also another method which may be called *objective generalisation*. Some thinkers object to the use of self-reflection, because they think that to take the elements in one's experience which are clear and distinct as fundamental is to dogmatise. What is fundamental to one's consciousness may not be so to another, and what is prior in one's perception may not be so in time or importance. So the proper starting-point for philosophy, these people urge, must be the whole area of *common* human experience and not the restricted sphere of an individual's subjective experience.

This can be done in two ways. There is first of all the crude form of it, which consists in taking over of the findings of the special sciences and uncritical common sense and effecting a cosmic generalisation which will explain all the facts known at a particular time. Some of the French Encyclopaedists, Haeckel and others have done this sort of thing. Such a procedure makes philosophy a sort of broad world-view obtained by putting together all the available scientific conclusions. It is a superficial and uncritical attempt.

Then there is the subtler and deeper way of doing it such as is found in the philosophy of Whitehead, and envisaged in Dewey's *Philosophy and Civilization* and *Experience and Nature*. This presupposes that in the thought of every age, in common

speech, social institutions, science, poetry, religion and human activity, a certain number of general ideas are implicit. To philosophise is to find out these ideas, formulate them explicitly and then put them together into a coherent scheme, so that it may make our experience more significant. Direct observation, deduction or the finding of the distinct and the obvious will not enable us to arrive at these general ideas; "imaginative insight" alone will enable us to hit upon them. These ideas should be such that they are not abstractions from some narrow area of experience, but should be those underlying all areas of human thought and action. They must be the ultimate generalities, the first principles, beyond which reason cannot go; and the criterion of their validity is that while meaningfully interpreting certain aspects of experience, they should not neglect or make a mess of other aspects of experience, and should also be able to explain future experience. Since completely general ideas which satisfy this criterion in all respects may not be found and since what seem to be general ideas may in course of time be shown to be not really so, there will never be one unchanging perennial philosophy. As human thought, action and their products, as well as human emotions, beliefs and hopes change from age to age, the ideas underlying them will also change; and hence any philosophy which but coordinates the various ideas, activities and emotions of a particular age and culture can be fully adequate and relevant only to that age and culture. All metaphysics is interim metaphysics only.

The utility of such a philosophy is that it takes away peoples' minds from engrossment in the immediate present, clarifies the issues on hand and shows the relative value of things, as well as alternate ways of action and thought. Deeper insight into the contemporary situation and a foresight which may enable people to plan their future more intelligently are the fruits of such philosophic speculation.

Philosophy, these thinkers believe, is a reflection and speculation which must have its basis in primary human activity, and its conclusions should render our life-experiences and predicament more significant and luminous. Philosophy should not be based on subjective individual experience, but on enduring corporate experience of a whole people. Imaginative reflection on the contents of *all* experience culminating in an unhampered speculative reconstruction of all the items of experience is philosophy. Such a philosophy will be a sincere expression and a reformula-

I think I have discussed many of the principal methods used in philosophy till now; but an exhaustive description of *all* the possible philosophical methods is impossible, because nobody knows all the types of questions that have arisen and could ever arise.

From the accounts I have given it is clear that while pre-suppositions and objectives determine the nature of the method selected, use of a particular method results in a particular sort of philosophy only. It is also possible to use two or more methods in combination, though some of these may not combine with others.

The differences in philosophic methods and objectives explain the lack of any unambiguous universally acceptable philosophic conclusion, or the establishment of any single philosophy as *the* philosophy. The very nature of philosophic activity is such that we must continue to have many philosophies for ever. And in this very variety and richness of philosophical thinking lies its charm, beauty and fruitfulness.

The superiority of any one sort of philosophy cannot be proved by reference to its accordance with the currently accepted body of scientific findings and methods, or to its mere relevance to, if not verification by, human activity and its consequences; because, *firstly*, some philosophies do not accept these criteria, and we ought to judge them by their own criteria, for not to accept the rules of a game is not playing the game. *Secondly*, the problem of differences in method and objectives is present even in the domain of sciences, and each science has its own logic and philosophy; whether a philosophy is scientific or not depends upon the criteria acceptable to the logic and philosophy of the science we choose. This is arbitrary, for endless debate is possible on the validity and universal applicability of any scientific method. As no unanimous agreement exists as to what sorts of human activity are worthwhile and should be promoted, and as there are no means of precisely judging how far and in what way a man's philosophy has influenced or can influence his actions, a philosophy cannot be evaluated solely by reference to its practical consequences. It is also possible that incompatible philosophies can lead to common actions. Vedāntins of different schools and Buddhists of different philosophic faiths indulge in common yogic practices. Gandhians, capitalists and Marxian socialists participated in *Satyāgraha*.

There is on the other hand the view that any philosophy is the product of a certain way of life and means of production of goods. The interrelations between philosophical objectives and methods and the socio-political and economic situations in which they arise, and the interrelations between the former and the temperaments and psychologies of individual philosophers provide us with a problem. In short, the investigation of the factors that determine changes in philosophical fashions is a fascinating inquiry. Reflection on all these problems is itself a new philosophy over against the others. In any case we shall have no one conclusive philosophy or a perfect perennial philosophy, but many philosophies, constantly changing and developing. That is more comforting to some of us.

tion of a culture, making it more significant and opening out possible ways of remodelling it.

In India only one such philosophic construction seems to have taken place. The Nyaya system sought to take into account the corporate experience of mankind (common sense), the contemporary physics of Vaisesika, religious experience as expressed in the Veda and the disciplines of logic, grammar and rhetoric.

V. *Analysis* is another method which has been continuously employed in philosophy since very early times. It is the direct opposite to the second method of interpersonal thinking. It consists in breaking up seeming wholes into constituents till what are believed to be the ultimates are reached. The ultimate — whether it is an idea, thing or language, — ought to be simple. Democritus' atomism, Locke's simple ideas and his historical method, Hume's impressions are the results of analysis. That all knowledge and things must be conceived as the configurations of elements, which are irreducible and atomic, and that organization of these into systems is governed by a limited number of simple processes and relations is a presupposition of the method of analysis. Nature, these philosophers believe, has only a limited number of independent entities and a discoverable structure, analysable into its components, and the ultimate differences are those of quantity. Similarly, believers in linguistic analysis hold that all propositions should be ultimately analysable into basic propositions which record the real form of the facts in question and that propositions not so analysable are nonsense. A proposition records the real structure of facts when it describes sense-experience. Besides non-sensical propositions there are, however, tautological sentences; and some sorts of nonsense, it was conceded, may have emotional significance.

This method ignores all that is integral, organic and complex, which refuses to lend itself to analysis into a distinct number of elements, or which when analysed loses its significance and richness. The non-cognitive aspects of human experience and activity — e.g., religion and art — fall outside the scope of analysis. Linguistic analysis presupposes that all language only describes the world, and that all types of meaningful statements ought to be reducible to one basic type, such as that found in natural science. Used with a knowledge of these limitations, this method will help us to avoid in many cases misleading language, false inferences and baseless assumptions.

VI. Lastly, I come to a method which I shall call that of *clarification*. Any man is a man before he is a philosopher and every man has certain beliefs, some of them acquired from tradition and his neighbours and others unconsciously formed by himself as a result of his feelings and cognitions. Much of the faith in values in the fields of art, ethics and religion has not been arrived at by logical proof or scientific observation, but exists somehow already; similarly certain ideas about human destiny, individual dignity, etc. It is clear that we cannot formulate satisfactory "proofs" or verifications to vindicate these. Now what is the basis for these beliefs? Examination of these beliefs can be undertaken in such a way that we do not proceed from them to any conclusions, but to their roots — the discovery of certain principles and experiences which serve as their foundation. What are the types of experience which these beliefs imply, and what would follow if these beliefs are not true? The goal of this kind of thinking is not further knowledge, but the clarification of what we already know, the making explicit of what we have been holding implicitly. Such clarification brings a belief into a consciousness of itself. It is also possible that we may be unaware of certain beliefs we already hold and reflection on our experience and behaviour may reveal them.

In this kind of thinking we arrive at no conclusions which we did not know previously, but we come to know things in a way different from that in which we already know them. Realisation of what we already know, discovery in experience of the roots of our beliefs is philosophy; and unlike sense perception, mathematical reasoning and science, it never leads to new conclusions or to the discovery of new facts, but by a reflective retrospection illuminates what we already know or believe, confirming our previous apprehensions and sustaining our already existing faith. In the *Monologium* and the *Proslogium* of St. Anselm we find an example of this sort of philosophy. The *Critique of Practical Reason* might be also given as an instance of an attempt to discover the foundations of moral faith in certain modes of experience. And, much of Advaita Vedanta is intended not to demonstrate some philosophic conclusions, but to strengthen and confirm what is already known and believed on the basis of the Upanishads. Reason here removes doubts, contrary beliefs and suspicion of impossibility.

Philosophy, on this view, is then the faith which knows what is knowable and elucidates itself, by being conscious of its own premises.

Philosophy as a Historical Phenomenon

by

DR. S. VAHIDUDDIN

"All philosophical systems which have been constructed as a supreme concord of the final results of the individual sciences have in every age possessed much less consistency and life than those which expressed the integral spiritual yearning of their authors" (Unamono : Tragic Sense of Life) Eng. Tr.

Philosophy as it appears in history shows such a variety and diversity of schools that it requires real philosophical insight to discern the unity underlying the seeming heterogeneity of thought. "Names have their destiny", writes Windelband, "but none has as strange as the word philosophy". At one time it is regarded as a meditation on death and at another as a guidance for life. Cicero assigned it a moral function, and Marx imbued it with a revolutionary ideal. The queer thing about the history of philosophy seems to be the undisputed fact that philosophy has no constant reference to a static content but assumes always a new significance in the ever shifting situations of human culture.

Now and again it is associated with religion so closely that it has appeared as a way to salvation, as a teaching about the destiny of man and as a *Brahma Vidya*. The religious impulse has always given an impetus to philosophical speculation and imbued it with its own aspirations. When Plato saw in wonder the beginning of Philosophy he gave us the common root from which Philosophy, religion and art develop. What he speaks of as Wonder is not simple amazement at something which we know not and understand not, but an awakening to a mystery which lurks everywhere. The close association of religion and art with Philosophy was rightly emphasised by Hegel, who discerned in the three principal manifestations of culture the reference to the same object. He recognised in each the element of knowledge and ascribed to all pre-eminently a cognitive function. Though it is not possible to concede to conceptual knowledge the highest status, Hegel has ample justification in seeing in art, religion and philosophy a kinship which distinguishes them sharply from empirical sciences and eco-

conomic activity. Even St. Thomas Aquinas was aware that the basis on which the poet and the Philosopher are alike is the fact that each is occupied with the object that provokes wonder. It is true that philosophy as a historical phenomenon cannot remain indifferent to empirical sciences, to the growth in mathematical knowledge and to the pattern of economic conditions. At the very beginning of Greek thought Mathematics and Philosophy were regarded as sciences par excellence, as they alone dealt with universal concepts; and attempts have been made again and again to make philosophy as exact a science as Mathematics. Descartes and Leibnitz sought to discover a *mathesis universalis*, and more recently Husserl essayed to establish philosophy as a system of universally valid self-evident truths. How far these attempts have borne fruit is shown by the polemic of Hegel against mathematical knowledge, and by the reversal of the whole approach to philosophy in the existentialists of our day who deny to philosophy its scientific pretensions and see in it only the illumination of existential situations. The over-emphasis on death, constant pre-occupation with the idea of Nothing and with the dread and cares in which human life is confined is only the transformation of the religious motives on the secular plane. Thus the present situation in philosophy has made it abundantly clear that philosophy which fights shy of religion and sees in art only the expression of emotional subjectivity without any transcendental reference is bereft of historical insight.

It is first the intellectualistic bias of the classical Greek thought and later the exclusive pre-occupation with empirical research that has come in the way of true philosophical understanding. For the Greek philosophy is above all *theoria* or conceptual knowledge. The ruling pre-socratic Greek tradition is, as Nietzsche well saw, Apollonian in character. It aims at the clarity of thought and relies on conceptual relationship and formal definition to reveal to us the nature of reality. Intelligibility cannot be divorced from being, and hence reality must needs be intelligible. As a counterblast to this intellectualism we find the life of passion and frenzy embodied in the Greek cult of Dionysius. For the ruling Greek tradition form and measure are the criteria by which even ethical action is judged. It fights shy of extremes, and can appreciate only proportion everywhere. This great tradition runs through Cartesianism, and finds its culmination in Hegel whose philosophy denies to feeling any cognitive right and looks down upon mystic illumination as capricious subjectivity. We owe it to the insight of Pascal that emotions at last came to their own and claimed for

themselves a separate logic and an independent reason. Kant denied to theoretical reason its pretensions, only to make room, as he himself said, for practical reason and to make the moral will immune to theoretical scepticism. Once it is realised that there are non-conceptual forms of knowledge, art and ethical action, mystic and religious experience do not become irrelevant to Philosophy, but the mainspring of Philosophical inspiration. Martin Heidegger sees the intimacy of the relationship between the poet and the thinker in the fact that in their universe "everything, a tree, a mountain, a house, the cry of a bird lose completely their indifference and familiarity".

The relation of Philosophy to empirical sciences has also undergone many a transformation, from the direct disparagement of empirical research and wholesale condemnation of facts to a glorification of sciences and to an uncritical abandon to their calculations. Philosophy became no more than a summing up of empirical results. It is true that in the dawn of philosophical speculation there was no bifurcation of science and philosophy, and by gradual process of differentiation sciences began to secede from their mother soil and declare their autonomy. Psychology was the last to assert itself, and in spite of all the efforts of the Behaviourists to disown the historical past of their science, Psychology can ill afford to lose its philosophical heritage. The light that has been thrown in the last few decades on the darker recesses of the human mind and on the complexity of human motivation and the new knowledge that we have gained through Psychic research confirm the view of Heraclitus that the more we dive into the depths of the soul the deeper it becomes. The existentialists like Heidegger and Jaspers, Sartre and Marcel have shown great appreciation of psychological problems, and the phenomenological research and the existential interpretation of the psychic situations show how closely psychological and philosophical problems are intertwined.

But the fascination of psychological research has made even acute thinkers often oblivious of the limitations of psychological explanations. One of the major problems of the Critique of Pure Reason was to show that the psychological method is inapplicable to the theory of knowledge, and Husserl in our own days waged a relentless crusade against the reduction of Logic into psychology. That Aesthetics and philosophy of Religion have problems which defy Psychological explanation and presuppose *a priori* foundations

is becoming clear. Already Plato's theory of ideas may be regarded as the classical attempt to go beyond the dichotomy of the physical and the mental to a third realm which transcends both.

It must be noted that the glamour of technology and the tremendous strides that physical sciences have made in modern times have been so overpowering for certain schools of Philosophy that the introduction of the so-called scientific method and the application of the categories of the Physical Realm to higher strata of being seemed as the only way of salvation for philosophy. All forms of positivism and naturalism work with the tacit assumption that the methodology developed with reference to the physical realm is applicable to all higher realms without any reservation. The revolutionary changes in theoretical physics and the crisis that has developed in Mathematics have shown the limitations of the so-called exact sciences. Only slowly are we coming to the realisation that cultural and historical sciences have also their own autonomous domains and demand a line of approach radically different from those of the physical sciences. Only slowly their methodology is being worked out, and thanks to the efforts of Windelband, Rickert and Dilthey a systematic logic of history and other cultural sciences has developed. It is above all in history that philosophers have come to see the most fertile field of philosophical investigation, and since Hegel they have come to see more and more that man is embedded in a historical process, and that the individual person can be "understood" only in his relationship with the objective spirit which embodies itself in art and religion, in law and languages. We may not only say with Croce that in a way all history is contemporary, but that all contemporaneity is historical. Thus with the awakening of historical consciousness a new philosophical anthropology has grown, and with it the ideas of man as a historical being. The historical orientation has brought into new light the problem of the history of philosophy, and has made it possible to see in the conflict of the systems of philosophy not a 'history of human errors' or a Chaotic anarchy, but a significance which can never be appreciated in terms of individual psychology or with reference to the typological differences of the human mind. Fichte had remarked that the philosophy one has depends on the man that one is. When the question of human values is at issue, the decisions express a risk, and in the choice of the alternatives the personality of the philosopher is a decisive factor. But no-one will venture to maintain that the differences of philosophical systems are basically personal. Rather

it is the personality of the philosopher that has its roots deep down in a reality which is historical in character. The philosophical alternatives which manifest themselves as a variety of philosophical systems do not depend on subjective predilections, but express the structural peculiarities of the reality itself. Hegel's great attempt to understand the history of philosophy dialectically is with all its speculative arbitrariness without a parallel in the whole history of speculative adventures. But unfortunately his supreme confidence in the correspondence of the Logical order with the historical misled him. His contention that the thesis and the anti-thesis must reconcile themselves into a higher synthesis and philosophy should work for absolute reconciliation betrays the theological origin of his optimism. Philosophy in him aspires to religious ends and becomes the mouth-piece of a divine comedy. It is true that the conflicts of the schools are not irreconcilable, but to hold that this reconciliation can be achieved in all its fullness is unwarranted. We might say in the language of Kant that complete reconciliation is only an idea, a desideratum which is always distant. Thus philosophy itself as *philosophia perennis* becomes an idea in the Kantian sense, an idea which only regulates man's quest and which is only partially and incompletely realised in history.

Dilthey's ambition to write a critique of Historical Reason and to develop a philosophy of philosophy led him to discover a new meaning in the clash of philosophical systems. For him the many-sidedness of life makes its comprehension possible only in isolated perspectives. Positivism, objective idealism, and the idealism of freedom are the typical alternatives between which philosophical thought constantly moves in history. Thus the conflict of philosophical systems finds its explanation in the nature of Reality itself, and does not depend simply on the variation of Psychic Types. Only with a philosophical evaluation of history and an historical appreciation of philosophical differences are we led to deliverance from scepticism which otherwise conclusively follows from history of philosophy. History, now, does not become irrelevant to philosophy, but shows in its dynamic a deeper meaning, and finds in the negativity of conflict a positive moment.

It must be noted, however, that philosophy in history is subject to the ailments and affections of the time, and the growth in philosophical consciousness is hedged in by the limitations of the time. Every period of history has its own limitations of outlook

and exclusiveness. What N. Hartmann calls blindness to certain spheres of values and fanaticism for others may affect a whole period and distort the axiological perspective. Again one special field of philosophical research may dominate the whole gamut of philosophical thought and lead to the undoing of philosophic universality. In recent times psychology and the Theory of Knowledge usurped the whole field of philosophy, and all metaphysics was relegated to the limbo. Experience was analysed in terms of atomistic sensationalism, and the great world of the poet and the mystic was consistently excluded from its range. Philosophy was either lost in speculative constructions without any relation to Reality, or fell a prey to such pragmatic, positivistic or naturalistic theories which can only be understood as conditioned by industrial factors and treated as symptoms indicative of cultural inanity. Happily we now find a revival of Ontology and a resurgence of interest in Metaphysics; but a meta-physics which sees the historical phase of Reality as final and conclusive and does not swing to the transcendent is not worth the name. The knowledge that we have gained in recent years in psychic phenomena calls for a new metaphysical ontology, a new idea of space and time and a re-consideration of the problem of the relationship of mind and matter and of person and person.

What then is the meaning of philosophy in human culture? The historical situation has made it abundantly clear that it is a universal phenomenon which recognises no distinction of the East and the West. It involves a transition of consciousness from love of wisdom to wisdom which is refulgent with love. Our sufis have always held to the conviction that knowledge without love is blind and Philosophy as wisdom born of love is the hope of the future in the turmoil of the present.

Concepts of Meaning and Understanding in New Physics

by

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1. Introduction

What was Einstein doing when he gave the general theory of Relativity in the form of mathematical equations containing the four 'generalised coordinates' and the ten 'gravitational potentials' and spoke in this connection of 'curved and closed space'? Did he mean anything and advance our *understanding* of some aspect of nature? The same question may be asked about the performance of Schroedinger with his Psi-function, of Heisenberg with his matrices and Dirac with his phase-waves. The students of modern physics answer this question in the affirmative, while a large section of philosophers will answer in the negative. This is surely perplexing to many who will ask themselves, "Is it that these leading physicists of our times bungled their job and betrayed the true ideal of science and that what is commonly known as the brilliant achievement of modern physics is but a heap of nonsense, or is it rather that the philosopher-critics of new physics are mistaken in judging this work by wrong criteria of science?" The layman will be inclined towards the second alternative, for it is *prima facie* less probable that the physicists have been deceiving themselves with glittering trifles than that the philosopher-critics are rather fanatic about what they think science ought to be, more precisely, about their definition of "meaning" and "understanding" with reference to scientific statements. The layman feels that the physicists must be finding *some* sense in the theories of relativity and quantum mechanics which, moreover, do offer them *some kind* of understanding of the world though the precise nature of this sense and understanding may not be very clear to them. The physicist who resents the philosophic criticism of the new developments of his subject will do well to clarify his so far vague ideas of 'sense' and 'understanding' in relation to his new science, and, moreover, to find some reasons for holding these ideas rather than those held by the philosopher-critics of this science. The

present paper is directed to help the physicist in this task of clarification and vindication. The nature of this task may be roughly indicated by its parallel in the philosophy of art where, for instance, a romantic critic like Coleridge upheld Shakespearean drama against its neo-classical critics, or a modern critic like T. S. Eliot vindicating the new movement in English poetry, of which he himself is a leader, against people who think that new poetry is 'true nonsense and false art'. The task, generally, is then, *first*, one of explication of what is actually meant by somebody's claiming some piece of scientific (or artistic) work to be meaningful and, *second*, one of showing how this explicated meaning is more adequate or theoretically justified than its rival.

2. The problem and its historical background

The problem at hand arises from the situation in the new theories in physics where the fundamental expressions, axioms, postulates and even theorems, do not describe any observable fact but are relations of pure theoretical constructs or uninterpreted symbols. Certain formulae follow from these top-level expressions according to the rules or definitions of the system and these are connected to observables (like pointer-readings) by Semantic rules.¹ The theory is then a calculus for predicting certain observational facts from certain others in a specific sector of enquiry. As such it states no fact and offers no understanding of the world but only provides us with a useful device to systematise a class of observables. It is neither true nor false but only less or more convenient. Should it then belong to pure or theoretical science which means a body of knowledge or rather to applied science or craft? Yet the physicists who devised these theories never suspected themselves to be straying from the path of pure science to that of technology. They were quite clear about the abstract or non-representative nature of their theories,² and most probably

1. See for a description of this axiomatic or formal method in science, R. Carnap: *Foundations of Logic and Mathematics*, (in *International Encyclopedia of Unified Science*, Chicago, 1955, Vol. I), pp. 206-10. (First published separately, Chicago, 1939). The relevant part is reprinted as "The Interpretation of Physics" in *Readings in Philosophy of Science*, ed., Feigl and Brodbeck, N. Y. 1953.

2. E.g. see Einstein: *On the method of Theoretical Physics* (London, 1933), p. 9; Also his, *The World as I see it* (New York, 1934), p. 30. E. Schroedinger: *Science and Human Temperament* (London, 1935), Chap. 7. P. A. M. Dirac: *Principles of Quantum Mechanics* (Oxford 1935), p. 10. W. Heisenberg: *The Physicist's conception of Nature* (London, 1958), p. 15,

they knew the simple difference between science and technology. So that we have to find out the precise sense in which they and their followers may have understood scientific knowledge, and then see how this sense is more adequate than the one of the philosopher-critics of new physics.

This other sense has its roots in three separate beliefs about science. *First*, the belief in the traditional Aristotelian theory of science that demands that science must be essentially deductive consisting of a finite number of principles, self-evidential to one's intuitive vision, from which factual sentences can be logically deduced; only a summary inspection of the observable facts is required for eliciting the intuition of these principles.³ *Second*, a belief in causal or mechanical explanation of sensible facts, that is to say, a faith that logically perceptible, even though empirically and not merely technically imperceptible, objects must exist at the back of the sensible phenomena, to be explained. (To explain these different sorts of perceptibility we may cite the case of submicroscopic objects like atoms and electrons, which being smaller than the wavelength of visible light of the shortest wavelength (violet) cannot be observed under the so far known laws of physical and physiological science. They are said to be empirically imperceptible. But they are logically perceptible as it is not self-contradictory to think that they could be perceived. The other side of the moon is only technically unobservable so far, but is both empirically and logically observable). The faith in such a causal explanation of phenomena led classical physicists to construct the theories of sub-microscopic particles which successfully explained so many phenomena. The success strengthened the faith which, therefore, must reject abstract theories. *Third*, a feeling that no statement be allowed in science which has no sensible meaning, that is, which is not in principle (or logically) directly verifiable by sense-experience. This is the feeling behind the empiricist criterion of meaning which seeks to exclude all metaphysical or abstract talk by this criterion.⁴

With respect to the first belief, mentioned above, about the nature of science, we may note that Aristotle's logic teaches by

3. See E. Beth: "Critical epochs in the development of the theory of Science" (B.J.P.S., Vol. I, No. 1, May, 1950).

4. See M. Schlick: "Meaning and Verification" in *Readings in Philosophical Analysis* ed., Feigl and Sellers, (N.Y. 1949).

implication that the fundamental principles of science must be supersensible or metaphysical, to be known principally by some meditative search which is only aided by observation. But since access to the abstract metaphysical principles was found impossible, they were replaced in scientific practice by such hypothetical constructs as have a close analogy with commonsense experience and, so, have a *prima facie* plausibility or self-evidential character. The proof of these constructs rests on this character rather than on the verifiability of their consequences. This modification of the Aristotelian logic of science was indirectly helped by Thomas Aquinas who explained and justified the use of analogy in metaphysical knowledge. Thus the transcendent hypotheses modelled on our commonsense experience came to be recognised as the true kind of scientific principles. This logic of science led to the distinction of a mathematically true theory of science, which is but a convenient instrument for saving and predicting appearances, from a philosophically true one that describes the real state of affairs. This notion of science worked in the mind of Bacon when he rejected the Copernican theory in favour of the Ptolemaic one, and in the mind of Newton when he described space as the 'sensorium of God', and also in Kant when he spoke of space, time, substance and causality as 'the metaphysical principles of science'.⁵

With respect to the second belief about the nature of science we may mention that this notion of scientific explanation is an extension of the commonsense notion of explaining a situation by an observable cause according to known laws in the manner of accounting for the disappearance of one's purse in terms of a thief who may be subsequently caught. The hypothesis of Neptune to explain the perturbations of the motion of Uranus is an instance of this sort of explanation. Explanations in history and geology too are somewhat of this kind. An explanation in these cases suggests a verifiable diagnosis of a symptom, so to say. It is completed when the diagnosis is directly verified, but partial or tentative when not so verified, though it is not empirically impossible to verify it, and when there is no rival diagnosis in the field. In the latter case, there is no law of nature, but only some technical difficulty, that prevents the verification of the hypothesis,—such as, for instance, that about the appearance of the other side of the moon; or, say a hypothesis about some geological state of the earth

5. See Philipp Frank: "Metaphysical Interpretations of Science" (B.J.P.S., Vol. I, Nos. 1 & 2, 1950).

or some historical event in the distant past which may be thought to be verifiable in a way by photographs of these objects taken by some ancient but scientifically developed people of some planet. Explanations in terms of such hypotheses are also accepted by enlightened commonsense. Now this commonsense notion of explanation works in a liberalised and sophisticated form in many scientists and laymen who admit explanatory hypotheses that are empirically unverifiable though logically verifiable. The sub-microscopic bodies belong to this class of hypothetical entities. They are modelled on our ordinary notion of particles and, so, suggestion of their existence has a *prima facie* plausibility to minds believing in the traditional (Aristotelian-Thomistic) logic of science described above. There is thus a subtle connection between the first two grounds of philosophic criticism of abstract science.

The third ground of this criticism is an empiricist criterion of meaning that demands a statement of a scientific theory to be descriptive of something that can be at least logically, if not technically and not even empirically, verifiable in sense-experience. The criterion seems *prima facie* to be a sensible one, for how else can a statement in science be demarcated from one in metaphysics? This criterion was rather narrowly conceived by Mach who sought to do away with all empirically unobservable entities like the sub-microscopic ones, and admitted them only as 'auxiliary concepts' or mere 'abbreviations' for 'economy of thought' or convenience.⁶ They could be explicitly defined in observation terms and, so, eliminated from the scientific theory, which would describe the sensible by the sensible as Poynting put it. Goethe, we know, treated the transcendent hypotheses as scaffolding of the edifice of science to be removed when the latter is completed, and we remember Russell's advice: "Whenever possible logical constructs are to be substituted for inferred entities."⁷ But this criterion of meaning implying a reductionist strategy in scientific methodology could not be in principle carried out in practice, for experience being open-textured we cannot definitely tell which set of experiences are to be correlated with a particular transcendent hypothesis. As a result we can never translate any scientific statement containing a transcendent hypothesis into observation statements without remainder or

6. E. Mach: *Science and Mechanics* (Chicago, 1893), p. 315, pp. 495-6.

7. B. Russell: *Mysticism and Logic* (Pelican ed. 1953), p. 148.

loss of meaning, and, so, eliminate it from scientific discourse.⁸ Moreover, a logical construct, being a summary of a system of sense-data, cannot have a prospective reference or predictive function that belongs to inferred entities which being, though not empirically, but only logically, observable, are postulated as existent and not held as fictitious. So that the logical constructs, though metaphysically simpler than the inferred entities, are methodologically less sufficient.⁹ This difficulty about logical constructs had a tendency to lead scientific thought to view the so-called inferred entities as somehow really inferred, though this inference cannot be strict like that of an observable object, say, fire, from its concomitant, smoke. Some sought to justify such an inference by describing it as an indirect observation "through causality" like touching a table by a stick,¹⁰ and arguing that such an inference from a connected series of observations (like pointer-readings, clicks in electronic counter, photographs of condensation tracks) and through certain relevant hypotheses yields more reliable knowledge than direct observation, just as a verdict based on thorough circumstantial evidence is more dependable than a few eye-witness accounts.¹¹ Now these attempts to rank the transcendent entities with observable objects imply a faith in the former objects as logically observable, though technically or even empirically unobservable. Thus the empiricist theory of meaning implies an implicit metaphysical theory that reality has a uniformity of structure at all levels of analysis not excluding the (empirically) imperceptible one,¹² so that the model or analogue of everyday experience may be at the back of the latter experience. Now this criterion of meaning, though broader than the one of Mach and earlier positivists that allowed sub-microscopic entities only as logical constructs or convenient myths, is still not broad enough to admit the abstract theories of new physics that do not describe

8. See for a brief discussion of this matter, S. F. Barker: *Induction and Hypothesis* (Cornell, 1957), Chap. 8. Also F. Waisman: "Verifiability" in *Logic and Language* (ed. A. Flew (Oxford, 1951)).

9. See L. W. Beck: "Constructions and inferred entities" *Philosophy of Science*, Jan. 1950, also reprinted in *Readings*, ed. Feigl and Brodbeck, *op.cit.*

10. E.g., V. F. Lenzen: *Procedures of Empirical Science* (I.E.U.S., *op.cit.*), Vol. I, part I, pp. 320-21.

11. E. H. Hutten: *Language of modern physics* (1956), pp. 52-53.

12. A. C. Lovjoy advocated this view, see his, *Revolt against dualism* (Open court, 1930), pp. 296-7).

any logically observable object. Recently some methodologists like Carnap¹³ and Braithwaite¹⁴ have sought to rehabilitate the abstract theoretical constructs of physics by a half-hearted and vague assertion that these constructs somehow get partially and tentatively interpreted and acquire empirical significance through their connection with observation statements. Einstein too seems to entertain such a liberalised concept of empirical meaning, when he declares that for this meaning of a theoretical construct "it is only necessary that enough propositions of the conceptual system be firmly connected with sensory experience."¹⁵ Both Ayer and Bridgman, who at one time demanded a strict criterion of empirical meaning for theoretical constructs,—the former in terms of 'verifiability' and the latter in terms of 'physical operations' (involved in determining the entity represented by the construct),—eventually came down to compromise in the matter in terms respectively of 'confirmability' and of 'mental, verbal and paper-and-pencil' operations besides the physical ones.¹⁶ But such compromises and half-way houses do not really help us to settle the question of meaning of the abstract non-intuitive constructs of science. It is difficult to think of meaning being gradually acquired by an originally meaningless expression as research goes on, though this may be a metaphorical way of describing the actual procedure of science where concepts like force, energy, etc., are not fixed but develop.¹⁷ Moreover, it can be shown that this criterion of meaning cannot succeed in ruling out purely metaphysical hypotheses from creeping into science.¹⁸

3. The proposed solution.

We thus see that the several notions about what science ought to be have suitably combined to bring about the present crisis in

13. R. Carnap: "Testability and Meaning" (*Philosophy of Science*, Vols. 3-4, 1956-7). Reprinted in *Readings*, ed., by Feigl and Brodbeck, *op.cit.* Also see his "Truth and Confirmation" in *Readings*, ed., Feigl and Sellars, *op.cit.*

14. R. B. Braithwaite: *Scientific explanation* (Cambridge, 1953).

15. Einstein: "Remarks on Bertrand Russell's theory of knowledge" (in *Philosophy of B. Russell*, ed., P. A. Schlipp, Evanston, 1944), p. 289.

16. A. J. Ayer: *Language, Logic and Truth* (London, 1946), Chap. I. P. W. Bridgman: "Operation Analysis" in his *Reflection of a Physicist* (N.Y. 1955).

17. C. G. Hempel: Fundamentals of concept formation in Empirical Science (I.E.U.S. *op.cit.*, Vol. II, No. 7), p. 49.

18. See S. F. Barker, *op.cit.*, Chap. 7.

scientific methodology, namely, the denial of any scientific sense and merit to what are acknowledged by the physicists to be the greatest achievements of science. The very alienation of direct sensible meaning from the key-concepts of science, that which has repelled a section of philosophers, has been welcomed by many scientific methodologists as instrumental in increasing "the scope, simplicity and experiential confirmation of scientific theories."¹⁹ Use in scientific theories of analogies drawn from common experience is regarded as positively unhelpful for the progress of modern physics.²⁰ In such a situation it seems necessary for us to clarify and defend as best as we can the sense in which these scientific thinkers find the abstract theories of new physics meaningful and fit to be called scientific.

3 (a). *The meaning of abstract theories and how they offer us understanding of the world.*

To clarify the above-mentioned sense we may summarily state that when the physicists speak of the abstract theories being meaningful and offering us understanding of nature they mean, by implication, that these theories, though having no meaning in isolation, make the observation statements with which they are indirectly connected by a long chain of definitions and reduction statements, meaningful. They may be likened to such parts of a sentence as prepositions and conjunctions which, without denoting anything, make a sentence, containing some denotative words, descriptive of a state of affairs, and, so, meaningful. They relate or order classes of observables in a particular sector of enquiry and, so, render them significant, so that we can predict some future observations from certain given ones with the help of these abstract theories. The theories thus offer us an understanding of a section of the observable world. They are thus meaningful and effect understanding of nature in the above senses. Can we say that we do not know what a word like 'in' or 'against' means just because we cannot mention or point to any referent of it? We know what such a word means in the sense that we know their use in meaningful discourse and know how they shed meaning on other terms, which separately mean observable things, but jointly mean a com-

19. See Hempel, *loc.cit.*

20. See R. B. Lindsay: "Future of Physics" in *Philosophy of Science* (Oct. 1938, Vol. 5, No. 4), pp. 465-67. Also, E. Zimmer: *Revolution in Physics* (London, 1936), p. 222.

plex state of affairs only with the aid of these so-called meaningless words. To use a phrase of Wittgenstein in a slightly different context we may say that the meaning of an abstract unintuitable expression or theoretical construct in new physics 'shows itself' as we operate with it in the description and prediction of phenomena. And since the phenomena are thus brought under some rule or order, these expressions or constructs may as well be said to effect our understanding of the world.

3 (b). *Vindication of this view.*

This being the sense in which the uninterpreted constructs of new physics have meaning and yield understanding of the world, we may now seek to defend it against its critics. The latter hold that a theory must be descriptive of some physical state of affairs and that the empirical laws describing the observable phenomena in the sector of enquiry must be derivable from the theory. The justification of the theory has to be given not only in terms of the confirmation of the laws by the observational data, but also in terms of some independent and more direct evidence for the existence of the physical objects or principles postulated by the theory.²¹ The case of the Kinetic theory of gases to explain Boyle's law, that describes the relation of pressure to volume of gases, and an independent and more convincing confirmation of the theory by the phenomenon of Brownian movement may be cited to illustrate and support this view. The treatment by Roger Cotes²² of Newton's law of gravity and of inertia as inherent powers of matter, respectively, to attract other matter and to resist a change of motion in it may also be cited. The molecules of a gas as well as the principle of gravity were regarded by many scientists and philosophers of the time as ultimate facts having a self-evidential validity because of their analogy with common experience. But this conception of scientific theory must be critically considered. Suppose a theory postulates some observable thing which is subsequently verified by observation, then the theory (together with the laws under it) describes an order of observable phenomena, made up of those stated by the theory and others explained by it.

21. A modern exponent of this view is L. O. Katsoff, see his, *Physical Science and Physical reality* (The Hague, 1957), pp. 159-61, also Chap. 20.

22. See his preface to the second edition of Newton's *Principia*. See also K. Popper: "Three views concerning human Knowledge" in *Contemporary British Philosophy*, 3rd series (London, 1956), p. 369.

We admit that discovery of new existent objects is a part of a scientist's job, but as soon as such new objects are discovered through hypotheses and verification of them and related to other objects, there arises the question of further explaining this new order of objects in terms of some other observables. Similarly the explanation of attraction of bodies in terms of gravity cannot be final. The essentialists view that there are some ultimate physical objects and principles which are self-evidentially true in a mere dogma that aids obscurantism. Newton himself regarded inertia to be an essential and ultimate property of matter but not gravity which he sought, but failed, to explain in terms of mechanical push of matter which he thought, following Descartes, to be an essential property of all bodies or extension.²³

Now the causal explanation of the sensible either by the sensible (i.e. technically discoverable) objects or by some *prima facie* plausible principle such as the essentialists conceive and demand of science cannot be possible after a certain stage of scientific advancement when the scientists have to postulate logically observable, but technically and even empirically unobservable, objects and abstract principles at the back of observable phenomena to explain them. The molecules are generally said to be indirectly verified by the observation of Brownian movement and the scintillations under the ultra-microscope, but strictly speaking they are but postulates to account for these effects which, however, provide independent and closer evidence for these particles than done by the empirical laws (like the Boyle's and Charles's laws) that require them as explanatory hypotheses. The same may be said with regard to electrons which are again said to be indirectly verified by the condensation tracks in the Wilson chamber and the clicks in the Geiger counter. In fact they are but models or analogical objects which cannot be verified but merely confirmed to some degree by verifying their consequences. As said before it is not any technical difficulty that prevents their direct verification but it is the constitution of nature itself, so far as it is known by us, that stands in the way. Now the positivists sanction such hypothetical entities though they are empirically imperceptible, and they cannot be inductively (i.e. hypothetico-deductively) established with any certainty because one cannot be sure that there are no rival hypotheses to explain the same class of phenomena. They do

it because these hypothetical entities bear some analogy with ordinary objects and, so, are meaningful and *prima facie* plausible. The theories in terms of these models or transcendent hypotheses are held as scientific. They are not like a mere mathematical theory, which is just a descriptive law having no explanatory value and giving us no understanding of nature in this sense. So far then we see that the three beliefs, mentioned above, that are antagonistic to an abstract theory in science, namely, that (i) the theory must appear to be self-evidential providing ultimate explanation of the phenomena treated by it, (ii) that it must be causally explanatory and (iii) descriptively meaningful, are operative at the back of the modern positivist methodology. It admits the logically observable objects like the sub-microscopic particles, but rejects the purely non-intuitive theories of Einstein or Dirac, treating them as mathematical devices for correlating facts offering us understanding of nature.

Now the three notions about scientific theory operative in the rejection of abstract theories are arbitrary norms that have an applicability in science in a restricted sphere. When science is still in its infancy we can guess and discover some observable agent causally related to a mass of other observable phenomena and explaining them. At a more developed stage of science these observable and causally explanatory objects may be exhausted, and we have to imagine certain analogues of observable objects to explain phenomena which will now include the formerly discovered causes. The analogues or models are then treated as logically observable and, so, really existent, though not technically and not even empirically observable. Though they cannot be verified but only confirmed to some extent by verifying some of their consequences, and there may always be the possibility of their being replaced in future by better hypotheses, they are admitted in science because of their analogy with commonsense experience, which analogy confers on them some sort of plausibility. Now this rather psychological, particularly aesthetic, preference for such entities and the related methodology of science, which has only a heuristic value, comes to grief at a further advanced stage of science when it is found that models do not really help us in organising facts. If we consider an atom or an electron to be a physical object with certain values for mass, size, shape, etc., then we are led to enquire about the reason behind just these values, whereas if we consider them as point-masses then we fail to understand how an entity without extension can be material, and a seat of force. In the case of electrons

23. See Popper, *op.cit.*, p. 371.

tends,²⁷ who, however, admits abstract theories of modern physics but rejects a formalistic (or instrumentalistic) interpretation of them. He believes that they are "genuine conjectures, highly informative guesses about the world".²⁸ He hopes that the physicists who conceive them instrumentally will eventually correct their mistake. Now certainly this criticism that accepts the abstract theories themselves but only objects to their interpretation as formal and instrumental is less drastic and flighty than the one that, accepting this interpretation and believing in the classical notion of science, regards them as misguided efforts. But so far as this criticism merely shows how the instrumentalist view disappoints the original aims and attitudes of science and appeals to our natural weakness for the latter, it is inconsequential. It is no good warning us against the defects of instrumentalism; since according to this view theories are neither true nor false but useful in various degrees in various ranges of application, they always hold their respective grounds, and, so, no real progress can be made in science.²⁹ We may reply to this particular charge of obscurantism against instrumentalism that there may be devised progressively more general and convenient calculi superseding the initially narrow and cumbersome ones; but our more general reply to this and other objections of the sort will be that, it is no use telling us how nice it would be if we could keep up our traditional ideals of scientific theorising and explanation; one has to show specifically how we could keep them up. Popper has not attempted a physical interpretation of any of the abstract calculi, but only hopes that physicists will be able to do this job. However, to help them in the job he has tried to clear the philosophical ground in two ways. He has shown them the dangers of an instrumentalist view which degrades science to technology or knowledge to a craft, and he has sought to cure them of an empiricist's prejudice against dispositional characters like elasticity and field of forces. He thinks the probability of a dice casting a certain number ought to be treated as a physical property of the dice, and hopes that if we follow this principle of physical interpretation of probability we can rescue the new quantum theory from an instrumentalist construction upon it. These are surely very good suggestions but as yet too vague and remote to

27. K. Popper: "Three views concerning human knowledge" in *Contemporary British Philosophy*, op.cit., pp. 377-86.

28. *Ibid.*, p. 382.

29. *Ibid.*, p. 380.

bring about any practical consequence, and so to convince us of the possibility of our going back to the traditional ideal of scientific knowledge.

4. Concluding Remarks

We have in this paper described the chief elements of the prevailing notion of scientific theory and shown how they are inapplicable in the present situation in physical science. We have in this connection referred to the sense-verificatory theory of meaning as advanced by the logical positivists and have suggested a non-denotative notion of meaning to justify the abstract theoretical expressions of new physics. We have in these discussions steered clear of the controversy over the concept of meaning that is current in modern logic. We may, however, mention here that a denotative notion of meaning, that says that every expression must, like a proper noun word, name something, may be working in the mind of many (besides the other notions mentioned in the essay) who protest against the abstractions of new physics. This notion of meaning is very naive. It arises out of a facile analogy between proper noun words and others; they all are symbolic expressions and we are said to understand them or grasp their meanings, so that as "John" means a person called John, other words like "dog" or "Justice" must have a corresponding entity. But a little critical reflection will reveal the worthlessness of this analogical argument for queer entities like *Dog* and *Justice* which are called subsistent objects, different from the existent ones, both mental and physical. For we understand these non-proper noun words in a manner and sense different from that in which we do proper noun words, and we mean by their meanings something different from the meanings of the latter words. We understand the word "dog" or "justice" in the sense that we know how to use them intelligently; we know what can and cannot be said with it and we do not know what it names. We know the meaning of the word in the sense that we know their sense or significance. Saying is not naming and *vice versa*. Meaning is denotatum or nominee in the case of proper names only, it is significance in the case of other kinds of words. This notion of significance in the theory of meaning saves philosophy and logic from many difficulties, for instance, the questions, where and how does the universal *Dog* or *Justice* exist, how to know it and how can it be related to its instances, how can Pegasus, the illusory objects or round square, exist, what do the words that are prepositions, conjunctions, adjectives, ad-

we find that its charge must become infinite as Dirac has shown. The behaviour of light requires for explanation two types of models, the wave and the particle, in two types of experiments as Heisenberg has shown. So that the particles as substantial and existent entities must be given up in advanced physics when a richer and a more complex experience requires them to be replaced by measurable parameters like mass, momentum, charge, etc., and the phenomena of interaction and transformation of particles in nuclear physics can be better represented in terms of parametric structure of the changing phenomena. An elementary particle is only a transitory carrier of certain parameters.²⁴

Now the view that these parametric structures are real entities, rather than the things that are said to have them, leads to a mathematical description of phenomena, and so to abstract theories like those of Einstein, Schroedinger and others. We must recognise the reasons that have compelled these physicists to construct such theories rather than those of the classical type. The nature of the data they have to cope with is different from the data of the older scientists who could very well succeed with neat models. The ideal of meaningfulness and understanding in science that is psychologically more satisfactory and applicable to classical physics cannot be valid for new physics that has to deal with data of a finer and more intricate sort. Should we judge the novels of James Joyce and Virginia Woolfe by Victorian standards? Do we not see that the experiences now treated by these novelists are more subtle and delicate, and, so, generally more subjective, where the neat and trim description of them is impossible. Hence the dissolution of plot and character and even of language (as in Joyce) in these novels. Justification in the logic of science for the new norms of meaning of scientific theories and for their capacity to offer us understanding of the world can be best done by showing how the old norm is utterly arbitrary and unrealistic in the new circumstances. Though the norms are not set up just to suit a certain order of things, for they state what ought to be rather than what is, yet this is but one side of the matter. The other side of the matter is that what a norm lays down as ought to be must be justified by the existing circumstances, that it is reasonably possible for one to produce things according to the norm which must not be too

24. See L. L. Whyte: "Fundamental Physical Theory", (B.J.P.S., Vol. I, No. 4).

exacting or irrelevant. We can define science in whatever manner we please and reject whatever portion of science does not satisfy our definition, but this arbitrary procedure will not be of any use to anybody. We have to see whether our definition is adequate. Of course there is an irreducible element of choice or subjectivity in this matter of setting up norms or definitions, and hence the constant disagreements over the question whether a particular work of a scientist (or an artist) is really scientific (or artistic). But there are constant attempts at clarification and justification of one's norms, such as the present effort, and these do effect some kind of mutual understanding and agreement. So that the fact that a norm or definition of what ought to be called scientific, though not a matter of straight-forward description of facts but one of prescription of a way to evaluate facts, is not a matter of pure subjective preference. There is a large core of objectivity in this respect and, so, scope for argument, such as is offered here in defence of our own norms of meaning and understanding, which justify abstract theories of new physics.

3 (c). *The objection of K. Popper answered.*

We have not only described the conception of scientific knowledge that works in new physics to-day, but have also prescribed it in spite of the classical opposition against it. We have shown how this opposition is grounded in nothing but a prejudice which may be corrected by an inspection and appreciation of the actual situation in recent physical research, where the demand for a priori plausible descriptive theories (i.e. postulates of models believed to be real existents) and causal explanations cannot be fulfilled. Now this implies that we have to content ourselves with certain abstract theories or mathematical formulae that do not describe any hypothetical and explanatory facts behind the ordinary observable ones, the data, but in a way describe, without explaining, the data, that is, the empirical world. So that these abstract theories are but calculi which are neither true nor false but less or more 'adequate' (as Schroedinger²⁵ admits) or 'right' (as Heisenberg²⁶ puts it) in their respective contexts or ranges of applicability. This means they are instruments or devices rather than pieces of information and, so, new physics that utilises them should be regarded as a kind of technology rather than science. This is what Karl Popper con-

25. Schroedinger: *Science and Humanism* (Cambridge (1951), p. 22.

26. Heisenberg: *Dialectica*, Vol. 2, p. 333.

The Emotive Theory of Truth

by

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I

There is a contemporary craze for linguistic analysis. Such analysis consists mainly in studying the various standard uses of expressions,—words, phrases and sentences of ordinary language,—with a view to determining precisely the concepts expressed by them. For, how else can we make our concepts precise except by studying the usage of expressions embodying these concepts? The present paper will be concerned with the concepts of truth and falsity.

'True' and 'False' are very familiar adjectives used to qualify two kinds of objects: (a) statements, judgments, propositions, views, laws, theories, hypotheses etc. and (b) things and events. The statement 'earth is round' is true and the hypothesis 'sun goes round the earth' is false. This is the first kind of use. "A true patriot", 'a false note', 'a false pride' are examples of the second kind of use. According to modern philosophers of language analysis such adjectives are not descriptive of any fact. In the meta-linguistic statement " 'Earth is round' is an English sentence", the predicate determines a factual character of the object-language statement, 'Earth is round'. But " 'Earth is round' is true" is equivalent to "earth is round". F. P. Ramsey and A. J. Ayer maintain, therefore, that meta-linguistic statements, which ascribe the predicates 'true' and 'false' to statements of object-language, do not describe any fact not already stated in the object-language statements themselves.¹ Similarly, though the two expressions, 'false friend' and "old friend" are grammatically similar, their logical behaviour is different. 'Old' refers to an attribute of the friend in question that is empirically verifiable or disverifiable, and thus its behaviour is cognitively descriptive of a factual property:

1. F. P. Ramsey, *Foundation of Mathematics*, pp. 142-143. A. J. Ayer "Criterion of Truth" published in *Philosophy and Analysis* by Margaret Macdonald.

verbs and pronouns, denote?³⁰ We have advanced the view of meaning as significance to justify the abstract theories of new physics, which are meaningful in this non-denotative sense. Our defence of and attribution of meaningfulness to these scientific abstractions have a wider and more robust support than what may appear to the reader of the paper, particularly to those not acquainted with the general problem of meaning in modern philosophy.

We may also derive some indirect support for our view from the situation in modern literary criticism where too a revision of the concept of meaning is going on. Formerly, say, till the first quarter of this century, a poem, a drama or a novel, had to have some intellectual idea, some message, expressed through its artistic medium by means of suggestions. The reader or listener must know what the piece of work means to tell us or convey. It must inform and teach us indirectly while evoking in us various emotions and offering us artistic delight. It must not tell anything directly and abstrusively, but it must tell something clearly and distinctly in order not to be nonsensical. This meaning of the literary piece could be stated in intellectual terms. But this demand for some intellectual idea as the meaning of a literary piece is now replaced in many quarters by that for some image, myth or even style or form of expression that may appear to be significant and symbolic of some truth of our world and life. This evocative meaning cannot be translated into intellectual terms, yet this is no less meaningful and revealing. It is further claimed that this new kind of meaning that these works possess is the only kind possible in this advanced stage of literary art, when artists have to cope with a much richer and subtler world of human experience than what their predecessors knew of. Life has become vaster, quicker and more complicated with the expansion of our scientific knowledge about the world and our body and mind, and use of instruments of production and enjoyment, and literary artists of our time are attentive to the minutest features of this rich and complex life. They find it impossible to comprehend its meaning in such clear intellectually formulable terms as their predecessors found it possible with respect to their experience of life. So that the charge of confused seeing and unintelligible expression brought against the moderns is hasty and unjust. Does not this situation

30. See Gilbert Ryle: "The Theory of Meaning" in *British Philosophy in Mid-century* (Ed. C. A. Mace, London, 1957).

in literary criticism, where the need for a revision of the older concept of meaning of a literary piece and of understandability of life and the world offered by the piece is felt as a result of the new objective conditions under which the literary artist has to work, bear a striking analogy to the situation in our logic of science? And does not this analogical situation in a sister discipline somehow reinforce our argument for a revision of the notion of meaning and understandability in our own? After all literature too, like science, seeks to understand an aspect of our experience, and, so, aspires to be meaningful, though the forms of this understanding and meaningfulness are different from those of science, because science deals with a different aspect of our experience. Therefore, if we find in literature a move for breaking away from the older moulds and in literary criticism a revision of older norms of understanding offered by a literary work and of its meaningfulness, then we can have some extra assurance with regard to the validity of parallel movements in science and its logic.

whereas 'false' does not describe any property of the friend, but only estimates his value. Truth and falsity are descriptively meaningless pseudo-concepts, the question of whose *nature* does not arise. Thus the philosophical distinction between the problems of *nature of truth* and of *criteria of truth* appears to be misleading. Whenever we ask "what do we mean by truth or falsity?", we are really demanding the criteria that people employ when they declare statements to be true or false.²

This may be interpreted, I think, as, either the criterion of truth is identical with its nature or, it is the *reason* for the evaluative emotions, felt and evinced, by the employment of that value-expression. For, the criteria of truth may be different in different types of statements and things. In factual, empirical statements like "This flower is red", that criterion is correspondence with facts. But logico-mathematical statements that are non-factual and a priori, are to be regarded as true by definition of the elements involved in these statements and not by correspondence with facts. If there are two kinds of statements, a priori and empirical, as held by the logical positivists, the logical criteria of their truth will also be different. But though the criteria be different in different cases, the meaning of 'true' and 'false', whatever it may be, seems to remain *invariant* in all instances of their use. There is a sense in which 'true' and 'false' are genuine meta-linguistic predicates, ascribed to statements of primary object-language as subjects, when the latter do not *assert* anything but are merely "assertible" (cf. W. E. Johnson, *Logic*, Part I, page 4). I can significantly assert "The statement 'earth is round' is true" or "Milton wrote Meghadutam' is a false statement"; for, here the subjects of the metalinguistic statements are themselves statements that do not assert anything but are simply 'entertained' for cognitive consideration. Here 'true' and 'false' must mean something as genuine predicates and cannot be mere pseudo-concepts. Similarly the criteria of a 'false friend' and 'a false God' are obviously different, though 'false' has some invariant meaning.

If so, the modern analyst must take the criteria to be merely the *reasons* for calling something 'true' or 'false'. The invariant meaning, if any, cannot be cognitively descriptive but may be purely emotive. It can only be the expression of emotions like admiring, honouring, respecting, praising or holding the statement in esteem. Such expression of laudation does not *say* anything,

2. A. J. Ayer, *Ibid.*

does not even describe the emotion, but simply evinces it as in the exclamations, "Bravo!", "Excellent!", "Encore"! This can also be done with clapping of hand without using any word. Similarly 'False' will express the emotion of dishonouring, annoyance, disgust, vexation, contempt etc., as in the exclamation "Fie upon you"! The moral adjective "good" is analogous and expresses, according to the positivist, praise, honour, respect, encouragement etc., and the symbol 'bad' expresses the opposite. Of course, Prof. Ayer does not clearly indicate the emotive force of 'true' and 'false', though he admits such emotive significance of 'good' and 'bad' with reference to moral context.³ Recently Mr. Barnett Savery has drawn a parallel between the positivistic theory of 'good' and that of 'true' and says, "if our logical analysis and our logical positivists insist upon their emotive theory of value, then for the sake of consistency, I suggest that they accept the emotive theory of truth".⁴ Prof. Ryle's statement: "There is something of a slur in 'false' and something honorific in 'true'"⁵ can, I think, be also given an emotivistic interpretation. If we assert a proposition to the effect that such and such is true, we do not make a statement of fact, but merely express a feeling which says in its emotive way, "I endorse, go you and endorse likewise".⁶ 'True' expresses a feeling of approval, or a pro-attitude and 'false' expresses a feeling of disapproval or con-attitude.

II

If my statement of the emotive theory of truth is substantially correct there seems to be some sense in such a view; for 'true' and 'false' are many-faced words that are a packet of meanings each. But the emotive force of the words, I think, is neither the only, nor the main sense, as the emotionalist seems to hold. According to the emotionalist all the values of human life—truth, beauty and goodness—are to be analysed in the same way. The emotive significance, i.e. the *proper meaning* of all the value-words, appears to be the same. The emotion evinced by holding a statement or thing to be 'true' is the same as the emotion expressed by judging

3. *Language, Truth and Logic*, pp. 106-107, 2nd Edition.

4. Barnett Savery, "The Emotive Theory of Truth"; *Mind*, October, 1955, p. 521.

5. From "Truth as Appraisal" by A. R. White. *Mind*, July 1957, p. 320.

6. See Barnett Savery "The emotive theory of Truth", p. 518. (Mr. Savery expresses the feeling as "I believe". But to bring out the emotive character, it is better to say 'I endorse' or 'I admire').

an action to be 'good' as well as by saying that a painting is 'beautiful'. If we take this to be the only proper meaning of value-words, may we not substitute one word for another? Suppose a man commits robbery and escapes. Instead of saying that his action is 'bad', let us say that it is 'false'. May we not imply by the latter mode of speech that the action has not been done at all? Then what is the use of police investigation after the alleged crime? Does it make any sense when we say "The Tajmahal is true", " $(3 + 3 = 9)$ is ugly", or "The 2nd law of Thermodynamics is beautiful"? If it be said in reply that such substitution is not possible because the criteria of different kinds of value are different, then the meaning of 'true' and 'false' in respect to their criteria will be more fundamental than their invariant emotive significance. If, on the other hand, 'true' is cognitively vacuous and emotively expressive, the criteria cannot determine truth. For, the criteria must constitute the cognitive or descriptive aspect of the meaning of 'true' and 'false'. Is not then the emotivist under the obligation to explain the differences in the emotion evinced by different value-words 'true', 'beautiful' and 'good'? But what are these differences?

Further, we may not always express praise and admiration by 'true'. There is such a thing as *unpleasant truth*, and even if we recognise something to be really true, we may not be favorably disposed towards it. An unpleasant truth has a bitter taste and when we recognise it, it is the logical criterion of truth that seems to be more fundamental.

Again the criterion of knowing or recognising something to be true, i.e. the cognitive aspect of the meaning of 'true' or 'false', may come into conflict with the emotive aspect of it. This is because emotion is a conservative element of human nature and cognition is a changeable element. I may have held a statement in esteem and praised it without scrutinizing the criterion by which I know it to be true. Later on when I come to examine the criterion I may find the statement to be false. But since once I have held the statement in esteem, it becomes difficult for me to withdraw the sentiment from it, and even after knowing it to be false I may emotionally cling to it. Here also the criteria ought to be regarded as more fundamental than emotive evaluation. A view praised and respected at one time may be rejected subsequently, and this the scientist does by impartially examining the criteria of truth.

III

Mr. A. R. White⁷ is right in taking the criteria, to be applied in saying X is 'true' or 'false', to be descriptive or cognitive aspect of the meaning of these appraisal words. 'Being supported by facts', for example, is a property of some empirical statements, and this is known when we apply the criterion of correspondence. Similarly, 'being coherent with other statements' or 'being useful' may be a property of some logico-mathematical statement or of some scientific hypothesis, respectively. Hence "..... (a) to say 'x is true' where the criteria of truth are known conveys information about x, (b) to say this where the criteria are not known fails to do so".⁸ Yet Mr. White seems to take this descriptive aspect of the meaning to be only *secondary*, for even when we do not know the criteria we can use and understand the expression "x is true". "To give the criteria of truth is not to give the meaning."⁹ The more intimate aspect of the meaning of 'true' or 'false' is *evaluative*, according to Mr. White, for this remains invariant even though the criteria differ. A proposition to the effect that something is true is an evaluative or critical judgment upon a proposition or thing as distinguished from mere factual judgment that is purely descriptive. Appraisal is estimation of value and implies the grading of propositions or things in question as higher or lower. In saying 'x is true' I grade x high, and 'x is false' grades x low. This is the primary aspect of the meaning of 'true' and 'false' according to Mr. White. Value-judgments are appreciative verdicts of commendation or condemnation. Evaluation is not merely an expression of emotion but is a kind of stating the grades with reference to some criteria or standards, analogous to the grading of examination scripts as "good", "fair", "bad" etc., which also sets up some standard. Such grading may or may not contextually imply some expression of emotion like praise, admiration etc. Thus teaching the use of the word 'true' is not like that of an ordinary descriptive adjective 'red' that is destitute of evaluative sense.¹⁰

This view of "Truth as Appraisal" seems to be better than the emotive theory of truth. The evaluative judgment as distinguished from factual judgment need not be meaningless. But here also it seems to me that the descriptive (criteria) aspect of the meaning,

7. "Truth as Appraisal" by Allen R. White. *Mind*, July 1957; p. 320.

8. *Ibid.*, p. 319.

9. *Ibid.*, p. 319.

10. *Ibid.*, p. 319.

Linguistic Analysis and the Ideal Language Method

by

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Some time ago I came across an article by C. L. Stevenson in the 'Philosophical Review' of July '57 entitled 'What is a Poem?' and I eagerly started to read it. The author began with a definition of the poem as referring to a sequence of words, and then went on saying that the sequence expresses such and such a meaning; later, by an ascending process, the writer laboriously attempted, step by step, to 'induce' the poem from the particular sequence of words with which he originally started. I. I. Richards in his 'Principles of literary criticism' asks a similar question, and begins by saying that a poem refers to certain experiences that we may have when we read certain words. According to him the words are properly interpreted when and only when the person reading them gets an experience that is very like the poet's experience. But Stevenson does not concede even this. He says that Prof. Richards' answer is debatable and that "those who make much of the intentions of the artist in aesthetics are likely to accept it, whereas those who make much of the 'intentional fallacy' are likely to reject it". I have no doubt that he considers himself belonging to the latter category. Needless to say that I was thoroughly disappointed with what Stevenson had achieved in his unusually lengthy but fruitless article. A Positivist-analyst is simply incapable of looking at a poem from the 'experience-end'—he does not even accept that there is any such thing—and this learned author was no exception.

To the outward of course a poem is a jumble of sentences, and each sentence is compounded of words or a sequence of words; but is that all that is most important in a poem? The Positivist perhaps claims that it is the only thing that is given to his perceptual observation. Is then a poem just poetic language—a language in which words are perhaps less haphazard and more adhesive? To you and to me as outsiders it may be that, but what of the poet himself? To him, it must be a different story. To him it

specially of 'true' and 'false', is logically more fundamental than the evaluative aspect. If the *criteria* of truth be different in different kinds of statement (empirical, apriori, hypothesis) or in different kinds of things, the 'true' *meaning* of truth must be *multivocal* and not univocal or invariant. It is doubtful whether the evaluative function of 'true' and 'false' is analogous to the evaluative job of 'good' and 'bad'. We can easily grade apples in a series with the aid of some criteria. Apples may be 'very good', 'good', 'fair or tolerable', 'bad' and 'worthless', and these grades differ in degree. But I think that there are no "degrees" of gradation of 'true' or 'false'. These words express an invariant, non-gradational estimation of value. There cannot be any such series as 'truest', 'truer', 'true', 'misleading', 'false', 'falsest' etc. in any real sense. We may use such expressions as 'absolutely true', 'true as a matter of fact', 'probable', 'false', 'absolutely false', etc.; but these modal expressions are used more subjectively for the sake of emphasis than with reference to the criteria of truth and falsity. Either a statement corresponds to fact or not. There cannot be any degree of correspondence. Thus there can only be two kinds of estimation of value, 'true' and 'false', and there cannot be any degree of such valuation. As Mr. White does not admit any degrees of truth in Bradleyan sense,¹¹ he cannot but maintain that the use of 'truer' and 'truest' must be more or less subjective. Non-gradational valuation depends on the criteria alone and hence the descriptive and not the evaluative meaning is more fundamental in case of 'true' and 'false'. Valuation is the function of criteria, but not conversely.

Evaluation is, therefore, not mere gradation. If we consider the scale of intensity of sensations we find such non-evaluative gradation or arrangement of sensations as higher or lower in intensity. This is factual or descriptive gradation. But the tea-taster's gradation of different qualities of tea is evaluative gradation fixing the price of the commodity. Now what else, besides mere gradation, is involved in evaluation, except the expression of a pro-or & con-attitude i.e., except praising and endorsing? With this we come round to emotive theory of truth with all its attendant difficulties.

IV

I conclude, therefore, that the descriptive meaning (i.e., the criteria) of 'true' is more fundamental than the evaluative, and

11. *Ibid.*, p. 322.

this is perhaps admitted by Mr. A. R. White, indirectly. He says, " 'True' as well as 'good' praises, directs, guides, encourages, agrees, endorses, expresses a favourable attitude, sets up standards. Perhaps it is mainly this last, which was the concern of most theories of truth, and in a sense was *rightly their concern* since the kinds of standard point to kinds of evaluation".¹² The standards set up are the criteria, and hence the descriptive meaning must be the primary aspect of 'true' or 'false'. Different kinds of criteria will involve different kinds of evaluation. I am not disputing that 'true' expresses a favourable attitude, praises, directs and evinces an appropriate emotion. But these are perhaps secondary and metaphorical senses. I am ready to go even further and hold that the logical criteria cannot but determine the *nature of truth*, as these are the standards of 'truth' and of nothing else. In a sense, criteria of truth (standards) and truth (i.e., its nature) are one and the *same thing*. The criterion is not a mere test of truth. Correspondence to fact, for example, is the criterion of empirical statements. This defines the truth of such statements, and also defines their logical meaning. For we can easily define an empirical statement as that whose truth-value is determined by correspondence with facts. Such identification of the meaning of a statement and its truth-value will surely be endorsed by our logical analyst. But the criterion (standard) of truth is one thing and its test is another; for, the tests of one and the same correspondence (criterion) may be very various. Thus correspondence or non-correspondence of the statement "This cup is hot" may be tested or verified either by hand, or by lips or by a thermometer. Thus the old philosophical distinction between the nature of truth and the test or verification of truth returns with full force. We must hold that the logical criterion of correspondence defines the *nature of truth* of empirical statements, coherence defines the truth of logico-mathematical statements, and pragmatic utility defines the truth of scientific hypotheses. 'Truth' therefore is not a pseudo-concept, and the problem of its nature is not a pseudo-problem. If we evaluate things and statements at all, we are to do that with reference to some criteria. Thus value-judgments with reference to 'true' and 'false' are mainly descriptive and partly critical or appreciative. The linguistic analyst is, therefore, wrong when he holds that 'true' is not a descriptive adjective at all.

12. *Ibid.*, p. 330—my italics.

is the yearning of a 'subliminal' heart and also I should say 'Subliminal' intellect. It is the cream generated as a result of the churning of the sublime emotions by the discerning intellect. Whenever this churning in the subliminal occurs a poem is generated, may be in words, or in other kinds of symbolical expression. Not that therefore a poem cannot have any elements, but that a poem or, for that matter, any aesthetic product, is a result of a creative synthesis of elements, and is thus an 'emergent' phenomenon. If there is none of this Synthesis, emergence and creative experience, there would then be a mere sequence of words, not a poem.

Collingwood considers every philosophical work a poem of the intellect. "What is expressed in it," he says, "is not emotions, desires, feelings as such, but those which a thinking mind experiences in its search for knowledge". I would not go to the extent of saying that every poet is a philosopher, but I am certain in my mind that it is only a poet that is capable of genuine philosophical expression, for it is only a poet who can look below the surface of things, and who has a certain Vision—a Vision, tempered by reason and intellect, is the 'sine qua non' of all true philosophy. Look back into the history of philosophical ideas,—the Vedas and the Great Upanishads of India, the noble works of philosophers like Plato in Ancient Greece, the outpourings of St. Augustine, St. Thomas and a host of others. These are all poems of the intellect, full of the uprush, gushing forth from the mainsprings of the 'subliminal'. In them language was not only at its best, but also itself attained complete fruition and fulfilment. But now look at the present! It is now no longer the subliminal, the lid is firmly over it; it is supraliminal, as F. W. H. Myers would term it; it is the surface, it is the crust, it is the decay and degeneration, not only of philosophy but also the language in which it is expressed. The language of philosophy now is a language become too self-conscious, a language itself talking a language; and like Narcissus falling in love with its own reflection and caressing its own form and structure, it has forgotten completely all other problems. It is a language which, like the schizophrenic, has completely withdrawn into itself, losing contact with the world and its relations. It has, in short, become pathogenic. It has been said that language begins as poetry and ends as Algebra. Nowhere has it been truer than in Philosophy; only, the present day positivist language is much worse than Algebra, having been ill-conceived and misapplied.

It would be interesting to find the reasons for this language obsession in recent times and the spread of its tentacles into the

realm of philosophy. Ever since Locke wrote his famous essay, there was growing among philosophers—of the empiricist brand at any rate—a particularly conspicuous desire to be careful and wary in the use of philosophical terms, and a self-conscious and self-righteous effort at clarity of expression and a careful analysis of problems. This tendency, no doubt, reached its climax in Moore whose 'Philosophical studies' is an instance in point. His 'refutation of Idealism', 'Status of sense-data', 'conception of reality', etc. are all remarkable for the incisiveness of his intellect and keenness for analysis. Moore's work, especially his 'refutation of Idealism', was the turning point and a most important landmark in the history of Realism in particular, and empiricist movement in general. His is generally considered to be the opening shot in the attack on Idealism, and whether his Gun had actually fired the shot and hit the target, or misfired, there was no doubt whatever of the fact, however, that it scared away for the time being Idealism, at least in its purer manifestations, from the field of western philosophy. I cannot but make a passing remark here that there are certain concepts which philosophers—whether of the idealist or the realist brand—use, which are not easily amenable to the type of analysis made famous by Moore, or at least that such concepts lose their essence or significance when subjected to such analysis. Be it noted that analysis fails not necessarily because the concepts are meaningless, but because they belong to a different framework or plane of discourse. The difficulty with Moore, notwithstanding his great powers of analysis, is that he used little insight, and as a result he, more often than not, missed the point. He missed it because he frequently argued from outside the framework of the one he was criticising. These remarks apply with even greater force, I believe, to the present day linguistic analysts who always argue from the Zero-levels, and meta-levels, but never get beyond language level. It is significant that most of these are disciples, directly or indirectly, of the famous trio, Moore, Russell, and Wittgenstein.

Moore was a Realist and he was sincere in his analysis; nobody could question that. But his type of analysis was, in due course, complicated by the admixture by Russell of Mathematical Logic with it, with the result that we have begun to have in Philosophy a hybrid which was a cross between language and Mathematical Logic. Russell's main interest is Science, and to him perhaps Philosophy is no more than a hand-maid of science. His 'constructionism' is only intended to justify science, and his whole quest for

only through such an enquiry into the proper syntax of value sentences can we gain insight into a solution of the puzzle, 'what is value?' He makes the usual linguistic-Positivist assumption that 'an analysis of our valuational language can furnish reliable insights into or at least clues as to the status of value in the world'. This linguistic analysis of the structure of value sentences, moreover, should take place in an ideal language. This notion of ideal Language, in Prof. Hall's own analysis, arose: (i) partly as an attempt to develop a tool of philosophical analysis that would avoid the ambiguities and misleading associations of ordinary grammar, (ii) as an attempt to solve or rather to avoid the occurrence of certain logical paradoxes; (iii) but more important, because it was felt from the beginning that in its structure it would reveal the categorial structure of the world.

It is the last of the above three assumptions that I wish to challenge. The first two certainly appeal to our reason as well as to our commonsense. The third one, to elaborate it a little more, was to the effect that "The vocabulary of an ideal language will show what simple entities are in the world; its true elementary sentences will tell us the facts; the forms of its elementary sentences will give us the structures of the facts" and so on. If it is said that the analysis of the structure of valuational sentences would reveal the categorial features of the world, would it not be tantamount to putting the cart before the horse? Language is further supposed to furnish the grounds of our empirical knowledge. To think that we can know the empirical world only through language and that we cannot know the structure of the world independently of language appears to me, on the face of it, absurd and highly preposterous. We are always, every moment, sensing the structure of the world, perceiving it, and acting on the basis of that knowledge. To facilitate action, and if we care, we formulate certain concepts in language. If it is supposed that a living being cannot know the structure of the world independently of language, more than three quarters of the number of living creatures of the globe will have to perish, because they have no language as humans understand it. But still they live and act on the basis of their knowledge of the structure of the world, known independently of language.

Again this doctrine takes an atomistic and elementaristic view of the facts of the world as well as elements of our language. It assumes that there is, or that there should be, something like a one

to one correspondence between the symbol we construct and the actual facts. The structure of the world, I would suggest, is 'molar' and not 'molecular'—to take the two terms from recent Psychological jargon—and as such could never be known by the artificial constructs which are our own making. To be just to Prof. Hall, he does not think that the adoption of Ideal language method warrants the assumption of 'ontological atomism'.

Prof. Hall answers a number of objections to the use of Ideal language, and disposes them off with a powerful argument in its defence. Among the arguments he disposes of are the following:— (i) The method is circular. (ii) The ideal language could not actually replace everyday language. (iii) The ideal language is not capable of realisation. (iv) An ideal language, to be ideal in the way necessary to the task of philosophical analysis, must be completed, not just sketched out, in the fashion of a model. (v) The ideal language method was designed to answer a type of question which is not legitimate—the type of question, for example, like 'what is fact?', 'what is value?', etc., which are just verbal confusions. It would be impossible for me either to elaborate on all these objections or to dilate on Prof. Hall's illuminating defence, because of want of space. The task, however, is unnecessary, because I consider his arguments irrelevant for my purpose, because they are founded on an assumption, the fundamental basis of which I would question, the assumption being that "the ideal language method uses an ideal language not to improve in general upon everyday language, but to improve upon it as a vehicle of philosophical insight, as revealing categorial features of the world." In other words, the ideal language does not merely describe the categorial features of the world, but actually furnishes the grounds for the latter. I consider it just as absurd as saying that the shadow furnishes the grounds for the substance, or the image of the face in the mirror furnishes the grounds for the real face in flesh and blood. Not satisfied with just one Ideal language, Prof. Hall visualises the possibility of using a battery of ideal languages, "if we wish to show adequately the categorial features of reality as judged by the main sorts of things we can and do say in everyday language." He reiterates this view in his reply to Hochberg thus (Mind, Jan. '58). "I could find no one model or fragment of an ideal language that could properly render into clarified form the sense of our every day value-talk, nor any but what required ordinary speech to state its appropriateness. Hence my position was that a whole battery of such models must be used, embedded in every day Eng-

certainty is a quest for 'empirical symbols to replace unempirical symbols'. To accomplish this, mathematics and logic happened to be very handy as instruments. In fact, for Russell, they are in a sense identical. "They differ as boy and man. Logic is the youth of mathematics, and mathematics is the manhood of Logic". The process of 'Logicising' and thus rejuvenating mathematics is rechristened with the name 'Logistic'. The first offspring as a result of this unnatural alliance between Logic and Mathematics was the theory of 'Descriptions'. A description of this theory is now not called for except the remark that Russell's elaborate 'Description' of complete symbols like 'author of Waverly' has not made those symbols any more luminous than what they were before they were subjected to that painful operation; and I am afraid that between complex symbols like the 'author of Waverly' and much more serious and complex problems like the 'author of the universe', there is yet a long way to go.

Philosophy which began as a 'poem of the intellect' is now getting closer to becoming a kind of mathematics and Algebra. Carnap's thesis that Philosophy is to be replaced by the Logic of Science, and that Logic of science is nothing other than the logical syntax of the language of science, reduces philosophy to mere 'logical analysis of the concepts and sentences of the sciences'. 'The aim of logical syntax' according to Carnap 'is to provide a system of concepts, a language, by the help of which the results of logical analysis will be exactly formulable; Carnap was, on his own admission, largely indebted to the writings and lectures of Frege, to the 'P.M.' (Principia Mathematica) and Tarski's meta-logic and Godel's method of 'arithmatisation'. The assumption underlying the above arithmetico-logical thesis of the mathematics-fad logicians was, in the words of Prof. McCracken (Philosophy Jan, 56—'Logic and Philosophy'), "that if we could develop a language in which each word is given a precise and definite meaning approximating in precision and definition to the meaning and symbol used in mathematics, the philosophers would have at their disposal an additional and powerful weapon." Prof. McCracken categorically rejects this assumption; he was certain that language does not work that way, and so it was unnecessary to discuss what he characterises the 'imaginary problem'. I would simply endorse Prof. McCracken's remarks with which I wholeheartedly agree. In support I would only add that any theory which arithmatizes and quantifies language is doomed to failure, for the simple reason that language is a 'creative' phenomenon, and its words cannot be forced into stable and

rigid mechanical moulds, nor can its elements be manipulated as lifeless symbols in Algebra.

Carnap distinguishes two kinds of speech—Material and Formal. A sentence is in a 'material mode' if it asserts an observable fact; it is in a 'formal mode' when it makes no assertion about a fact. In the former case, the sentence is true if the fact it asserts is observed, false if it is never observed. In the latter case, the sentence is neither true nor false, but a mere 'stipulation about syntax in some language'. Metaphysical sentences are only "pseudo-object sentences", they are meaningless when they appear in the material mode of speech. Confusion and obscurity regarding metaphysical problems arise only because of 'the deception and self-deception induced by the application of the material mode of speech'. Metaphysical sentences are significant only as Formal sentences, and as such there is no way of verifying or disverifying them. Thus the task of the philosopher has been reduced to that of a translator, translating sentences from the material mode to the formal mode, and in the case of metaphysical sentences to declare them as 'Nonsense'. Since the formal mode is a matter of stipulation about Syntax in some language, the question arises, what language? This problem has led the language-enthusiasts to investigate further and try to evolve a universal language, a kind of 'Esperanto', a language, which is 'not talked', but only 'talked about'—an ideal language, in short.

Bergmann in his "metaphysics of Logical Positivism" distinguishes two types of linguistic philosophy—Formalist and anti-formalist. Although both subscribe to the view that Philosophy is verbal, it is the Formalists that are more radical of the two. It is the Formalists that advocate the ideal of the ideal language; they devote themselves to the construction of symbolic systems, so-called artificial languages. Typical and pre-eminent among whom, of course, is Rudolf Carnap whose "Logical syntax of Language" is undoubtedly a classic. Leaving Carnap, however, for the moment, I shall briefly consider now a recent work entitled 'What is value?' by an outstanding author, Prof. Everett W. Hall, who was my teacher in the United States. We find in this work the method of linguistic analysis in its application to value-theory. It was an attempt to analyse value, to try to find out what it is. After disposing of the view that 'Value is a property' as highly implausible, if not definitely untenable, Prof. Hall embarks on a real linguistic analysis of value sentences, as he was convinced that

lish talking about them, to get as far as one can in answering properly such questions as 'What is value?' One might as well look into several mirrors instead of one, and then try to understand one's face on the basis of the reflections.

Given the Ideal language, we shall see with two examples how the reconstructionists attempt to reconstruct metaphysics. The thesis of classical nominalism that there are no universals, given the linguistic turn, becomes, according to Bergmann, the assertion that the ideal language contains no undefined descriptive signs except proper names. Again, classical sensationalism transformed asserts that the ideal language contains no undefined descriptive predicates except non-relational of the first order etc. etc. Bergmann mentions them only in order to explicate the two classical propositions, that is, what they would be in terms of ideal language; but I wonder what more purpose these translations and transformations could serve. They certainly could not solve problems. Problems are at best stated or described—in a language which sounds fantastic and eccentric. I concede that Ideal language method is one of the ways—a fastidious way, though—of speaking of the world's categorial features, but no more than that. Yet I maintain that when we have a problem for solution we do not ordinarily seek a translation of it into the ideal language before we go about trying to solve it. The whole question of translation arises because of the dogma that all metaphysical problems are verbal, and that there are no meaningful experiences at all not given to empirical observations. Suppose I have a stomach-ache and you are curious to know whether I have it or not, you certainly would not—would you?—look into the image of myself reflected into the mirror, trace the region of my body called stomach, and conclude: 'your physical body, transformed into the ideal condition of the image, contains stomach no doubt, but no stomach-ache?' I believe the ideal language method is just as absurd as all that. The pity is, the linguists have some sort of sight, but no insight. If they have it, they could easily see that there are not only sensations like stomach-aches but also higher levels of experience, as for instance, of value,—goodness, truth, beauty etc.—which are entirely outside the scope of the so-called empirical observation. Language is still in its infancy, and so not yet able to formulate the structure of these values and facts as easily as the 'structure of a chimpanzee', or a chair or a table, but that does not mean that the former do not exist at all.

To conclude: The whole programme of the ideal language way of linguistic analysis, to my mind, is ill-conceived, misconstrued and misapplied. Ideal language, no doubt, will help us to avoid the ambiguities of our every day language, and also perhaps avoid, if not solve, the occurrence of certain logical paradoxes; to that extent it would certainly serve a good purpose and in that sense the technique cannot be said to be harmful. But the linguists, by making a lot of fuss about the Ideal language, give it a hopelessly wrong and misleading turn, and are only serving to uncover some of its worst possibilities of doing irreparable harm to philosophy, and at the same time, hide its real potentialities for doing good. The same words with which Bergmann concludes his essay on semantics, used in respect to formal semantics, would, in my opinion, equally apply to the ideal language method in philosophy, namely: "It is philosophically not important. The current rage for it is but a passing moment in the history of philosophical thought".

Book Review

The Cultural Heritage of India, Volume I: The Early Phases [Prehistoric, Vedic and Upanishadic, Jaina and Buddhist]; second edition, revised and enlarged, 1958; edited by Suniti Kumara Chatterji, Nalinaksha Dutt, A.D. Pusalkar, Nirmal Kumara Bose; pp. 652 + lxiv, double crown 8 vo (10" × 7½"), with illustrations, maps and plans; price Rs. 35; published by the Ramakrishna Mission Institute of Culture, III, Russa Road, Calcutta-26.

The present work on the Cultural Heritage of India is the first volume in serial order but third in the actual order of publication. Volumes III and IV have already been published and reviewed in the pages of this *Quarterly*.

The importance of the present volume can hardly be over-emphasized. It is in a way foundational to all the other volumes. "The present volume digs deep into the past and reveals to our view the pre-historic glimmerings of this culture".¹ Without a proper understanding of these foundations it would be difficult, if not impossible, to appreciate fully and properly the contents of the subsequent volumes. The publishers rightly point out that it was the unique nature of the foundations that made possible the mighty edifice of Indian culture with its great diversity of thought and forms.² The knowledge of the past is indispensable to an understanding of any culture, for the past lives in the present and leads to the future. This is especially true in the case of an ancient and a living culture like that of India to which the past is not a mere matter of history, but something that has never ceased to exert its influence throughout its long history. At no time did India "completely cut herself away from her moorings in spirituality".³ The Vedas and the upanishads constitute these moorings. "These ancient monuments of India's culture set for all time the direction of its march; and it can be said that it is by following their lead that India has survived the ravages

1. Editor's Preface, p. xxxvii. (All the page numbers refer to the volume under review).

2. Publisher's Note, p. ix.

3. P. 163, Article on *The Religio-Philosophic Culture of India* by Sri T. M. P. Mahadevan.

of time".⁴ The present volume makes a nice introduction to these ancient monuments and the various aspects of their study. Let us now proceed to give some idea of the contents of this volume along with our critical comments wherever necessary.

The volume begins with the *Publisher's Note*. The primary aim of the Ramakrishna Mission Institute of Culture "is to promote the study, interpretation, and dissemination of the cultural heritage of India".⁵ The present undertaking is undoubtedly a major step in that direction. The publishers rightly draw attention to the famous upaniṣadic declaration, "that science is the greatest which makes man know that which never changes and by knowing which everything is known".⁶ This science is the famous Ātma-vidyā or Brahma-vidyā which is the quintessence of all the Vedas.

Next we come to a small but pregnant note entitled *The Spirit of India* by Rabindranatha Tagore who loved India "because she has saved through tumultuous ages the living words that have issued from the illuminated consciousness of her great sons—*Satyam Jñānam Anantam Brahma*: Brahma is Truth, Brahma is Wisdom, Brahma is Infinite; *Śāntam Śivam Advaitam*: Peace is Brahma, Goodness is in Brahma, and the unity of all beings".⁷

Then we have an *Introduction to the First Edition* by Sri Radhakrishnan. "Spiritual life", rightly says he, "is the true genius of India".⁸ Religion is, according to him, "a matter of experience.... It is Brahma-darshan—insight into Reality".⁹

The said *Introduction* is followed by the *Editor's Preface*. It provides a comprehensive and an excellent introduction to the volume under review and cannot fail to provide a proper perspective to its study. In a historic-critical consideration of things the myth of the golden past has to be discarded and, therefore, say the editors, "we have to bid good-bye to theories of hoary antiquity for Indian Aryan Culture, which we in India generally look upon as axiomatic".¹⁰ The learned editors rightly draw

4. *Ibid.*

5. *Publisher's Note*, p. vii.

6. *Ibid.*, p. ix.

7. P. xxi.

8. P. xxiii.

9. P. xxiv.

10. P. xl.

attention to the fact that there is no conflict between the Vedas and the Upaniṣads as many are prone to suppose, and "that the Upaniṣads do not represent a revolt or departure from the general trend of vedic thought, but a natural growth out of it".¹¹ Religion and speculation go hand in hand from the very outset¹² "as may be evidenced by the fact that the Rgveda anticipates the doctrines of *Māyā* and *Rūpa* by employing these terms precisely in their vedāntic sense".¹³ Not only this, "Most of the grand philosophic insights which we find flowering in the Upaniṣads can be traced back to the vedic source, at least in germ form".¹⁴ The preface ends with a note on the *Universal Ideals of Indian Culture* "with the great ideals of the Vedānta looming in the background and even forming the basis".¹⁵

The book itself is divided in four parts. Part I deals with *The Background of Indian Culture*. While going through this part one cannot fail to notice that the emphasis is rightly laid on Indian Culture rather than on the background itself. The various aspects of the background like the geographical, the racial, and the linguistic seek to bring out the real nature of this culture. While discussing, for example, *The Geographical Background of Indian Culture*, Sri Nirmal Kumara Bose says, "the whole history of Indian life and culture has been throughout an amplification of this idea of unity in variety".¹⁶ The two chapters in this part viz, (1) *Linguistic Survey of India: Languages and Scripts* and (2) *Contributions from Different Language-Culture Groups*, both by Sri Suniti Kumara Chatterji, make valuable reading and may prove helpful in removing some of the misunderstanding which has given rise to linguistic controversies in our country. Regarding Hindi the learned author says, "Hindi can claim to be the third great language of the modern world, coming after North Chinese and English".¹⁷ Sri Chatterji rightly emphasizes the importance of Sanskrit to India's culture. Far from being a dead language, "Sanskrit is still a dynamic, current language".¹⁸ In

11. Pp. 1 and iv.

12. P. 1.

13. Pp. 1—ii.

14. P. iv.

15. Pp. lxiii—lxiv.

16. P. 8.

17. P. 59.

18. P. 67.

P. Q. 10

the second of the two chapters just referred to, our author discusses the individual contribution of different language-culture groups and fittingly concludes the chapter in the following words: "Mother India is the repository of a composite culture, of which the vehicle of expression is the Aryan language, but the contributions brought by the Niśādas, the Kirātas, and the Dravidas are as important as those of the Aryans. This composite culture is the ocean in which several rivers have mingled their waters".¹⁹

Part II deals with *Prehistoric India*. In it we find discussed,—*The Stone Age of India, Indus Valley Civilization, The Origin of the Indo-Aryans, and Cultural Interrelation between India and the outside World before Asoka*. Most of these are even now controversial issues and it cannot be said that the last word has been said with regard to them. Our authors are aware of this and make a modest and a guarded approach to the same.

Part III deals with *Vedic Civilization*. It is the central theme of this volume. The twelve articles in this part "cover a wide field and throw a flood of light on the various facets of the vedic civilization, such as religion and philosophy, culture and society, rituals and other auxiliary sciences (vedāṅgas), and meditation and mysticism"²⁰ "Written by acknowledged experts, the articles . . . represent the quintessence of the long-standing study of the different aspects of the subject".²¹

This part opens with an article on *The Religio-Philosophic Culture of India* by Sri T. M. P. Mahadevan. The learned author while trying to bring out the spirit of India's culture removes many current misunderstandings about the Upaniṣadic philosophy, as, for example, that it is pantheistic, idealistic, or of the nature of subjective-idealism. A close alliance between religion and philosophy is an important feature of India's culture. To some Hinduism seems to be too philosophical to be a religion; to others it appears too religious to be philosophical. Many even in our country feel apologetic over this feature. But according to our author it is an 'unconscious compliment' to our culture. Indian philosophy is "essentially a quest for values", Mokṣa being the highest value. "It is the quest for Mokṣa, then, that has kept Indian philosophy and religion together; and if philosophy has

19. P. 90.

20. Editor's Preface, p. xlv.

21. Ibid.

not become barren and religion blind in India, it must be due to their reciprocal influence".²²

Summing up his chapter on *The Vedas and their Religious Teachings* Swami Sharvananda says, "One in the many, unity in variety, harmony and not discord, is the perennial message of Vedic India".²³

While discussing the *Vedic Culture* Sri Kunhan Raja points out that the fundamental tenet of Advaita Vedānta viz. that knowledge alone can lead to final release had been established even at the time of Ṛg-veda.²⁴

Writing about *Vedic Society* Sri Altekar says that marriage was a life-long bond and there are no indications of divorce. There were no castes but only classes, which latter too, were fluid.

The chapter on *Vedic Society* is followed by two highly informative chapters on *Vedic Rituals* and *The Vedāṅgas*, both by Sri V. M. Apte. The subsequent chapter is devoted exclusively to Yāska and Pāṇini, which seems to be justified in view of their importance to the Vedic culture. Yāska, the famous compiler of *Nirukta*, was a great rationalist. "According to his definition a ṛṣi is so called as he has obtained a vision of Truth (ṛṣir-darśanāt)".²⁵ The famous grammarian Pāṇini "is the most shining star to rise in the intellectual horizon of India."²⁶

After presenting a detailed account of the *Vedic Exegesis* Sri Anirvan comes to the conclusion that "the Veda cannot be taken as a specimen of archaeological curiosity, because it is still a living force in Indian spirituality manifesting a unity of purpose in her cultural homogeneity."²⁷

Writing on *The Dawn of Indian Philosophy* Swami Ghanananda draws attention to the two great gifts of the Aryans—the gifts of intellect and intuition—both of which seem to be indispensable to philosophy. Even in the Pre-Upaniṣadic literature, according to the learned Swami, there are evidences of identity of Ātman with Brahman.

22. P. 166.

23. P. 198.

24. P. 209.

25. P. 300.

26. P. 301.

27. P. 332.

Swami Madhavananda presents us *A Bird's-Eye View of the Upaniṣads*. The central question of the Upaniṣads, rightly says the learned Swami, is 'What is that by knowing which everything in this universe is known?'²⁸ The answer is,—Brahman which is the ultimate cause of the universe, 'from whom indeed these beings are born, through whom they live, and unto whom they return and merge in'.²⁹ The Swami rightly calls the Upaniṣads 'The Magna charta of human rights'.³⁰ The Upaniṣads alone, says the Swami, "of all the religious literatures of the world, give us the *rationale* of morality—why we should do good to others. Because we are all one! In helping others, we help ourselves; and in hurting them, we hurt none but ourselves".³¹

We must, however, record our disagreement with the learned Swami on one point. According to him Śaṅkara tortures an Upaniṣadic text, a passage from the *Kaṭha* (II. 23).³² The reason, according to him, is that the passage in question is 'clearly dualistic' and will not bear the monistic interpretation. We fail to understand by what logic the Swami can call the said passage 'dualistic', especially because he takes it for granted "that the monistic position is the soundest and explains all the other positions effectively".³³ Once this is taken for granted, the so-called dualism of the passage is bound to be reduced to a mere semblance. It seems the Swami has arrived at his conclusion rather hastily. While criticizing Śaṅkara without fully understanding him, he seems to have ignored altogether the canons of interpretation, the exigencies of the immediate as well as the total context which are and should be the primary considerations with any commentator worth the name. Śaṅkara puts a different but a deeper meaning into the words which is fully justified by the immediate as well as the total context and as such it can hardly be called a distortion. A glance at Ānandagiri's gloss on Śaṅkar's commentary will show that even the obvious meaning so fervently championed by the Swami is not altogether abandoned but is implied by certain words in Śaṅkar's commentary. Only this meaning has been subordinated to a deeper, metaphysical meaning which is more consistent with the immediate

28. Muṇḍaka Upaniṣad, quoted by the author on p. 350.

29. Taittiriya Upaniṣad, quoted by the author on p. 350.

30. P. 365.

31. P. 364.

32. More precisely the reference should be I.II.23.

33. P. 353.

and the total context. It is not difficult to bring out these deeper and finer shades of meaning in view of the elastic nature of the Sanskrit language with numerous meanings of one and the same word. In the present case, however, under the veneer of theism (and not 'dualism' as the Swami thinks) the deeper metaphysical meaning can hardly be missed. Paul Deussen has not failed to grasp this deeper metaphysical import of the passage in question as may be seen from the following quotations from two of his well-known works:—

(i) "According as the Ātman is conceived as a divine person, this revelation is represented as an act of his grace".—(P. 78, *The Philosophy of the Upaniṣads*).

(ii) "... the attainment of knowledge must depend solely and entirely upon ourselves: for the knowledge of Brahman can be conditioned by nothing else except that which in it is at once object and subject, by the Ātman, the Self; and this is our own real, metaphysical Ego. This metaphysical Ego appears in the exoteric doctrine personified as God . . . and corresponding to it this knowledge, which depends upon him, appears as Grace of God . . ." (*The System of the Vedānta*, Pp. 409-10).

Śaṅkar's interpretation has full metaphysical justification for, in the ultimate analysis, it is not the ignorance of God or want of His grace that is the cause of our bondage, but ignorance of our own real, metaphysical Self.

Let us also see what the impartial Paul Deussen has to say about Śaṅkar's abilities as a commentator:—"Śaṅkara in these difficulties created by the nature of his materials, in face of so many contradictory doctrines, which he was not allowed to decline and yet could not admit altogether,—has found a wonderful way out, which deserves the attention, perhaps the imitation of the Christian dogmatists in their embarrassments".—Appendix to *My Indian Reminiscences*, P. ii.

In a subsequent section entitled *Correct Approach to the Upaniṣadic Teaching*, the Swami assumes a mediator's role which seems to be quite gratuitous. Especially his recommendation, "... we have to approach the subject psychologically, rather than logically",³⁴ seems vulnerable on the face of it and as such

34. P. 355.

quite unacceptable. The moment we leave logic, we also bid goodbye to philosophy.

We come back to our theme after this digression. We have two more useful chapters in this part entitled *Mystical Approach in the Upaniṣads* and *Upaniṣadic Meditation* by Sri Mahendranath Sir-car and Swami Gambhirananda respectively. In the first of these two articles the learned author rightly draws attention to the fact that in the Upaniṣads there is no separation between the inner and the outer and that they emphasise the realization of the identity of forces working in nature and man.³⁵ Swami Gambhirananda rightly points out that Indian philosophy had a bearing on life from the very beginning. In the various upāsanās that we come across in the Upaniṣads, "Vedānta is reduced to practice".³⁶ The Upaniṣads first make us realize, 'Brahman is all this'; and then, 'I am Brahman'. The latter is the highest upāsanā.³⁷ This upāsanā itself is the highest knowledge. But technically there is a good deal of difference between knowledge and upāsanā which is nicely brought out by the learned Swami. 'Knowledge is determined by the object, but upāsanā is dependent on the subject'. Upāsanā is a matter of faith, not so knowledge. "Thus knowledge and meditation are entirely different".³⁸

Part IV deals with *Jainism and Buddhism*. The various aspects of these heterodox faiths are dealt with by recognized authorities in the field. But we must admit, we feel something wanting in the treatment of Buddhism. In the first place we miss the philosophical treatment of Buddhism and its important schools, especially because Buddhist philosophy does not find any place in vol. III of *The Cultural Heritage* which deals with the Philosophies. Secondly, sometimes it so happens that we are unable to see the wood for the trees, and this seems to be the case in the treatment of Buddhism in this part. One naturally expects a clear-cut and well-defined formulation of the fundamental teachings of the Śākya-muni. But this has not been done. Nowhere do we find mentioned the causal links constituting the *Pratītya Samutpāda* (dependent origination). Even the constituents of the famous eightfold path are not mentioned. The authors seem to have taken too much

35. P. 368.

36. P. 377.

37. Pp. 384-385.

38. P. 378.

for granted on the part of the reading public. Jainism, in less than one-third of the space allotted to Buddhism, has been better treated comparatively speaking.

In a chapter in this part entitled *Buddhism In Relation to Vedānta*, Sri Vidhushekhara Bhattacharya makes many controversial statements. He says, for example, "Brahmavāda or Ātmavāda is, in fact, Vijñānavāda".³⁹ But while pointing out the similarities between the two schools, the learned author fails to bring out the important differences between the same. It is interesting to note that the author's view finds enough refutation in this very volume. Turning over a few pages we find Sri Satkari Mookerji saying, in his article on *Buddhism in Indian Life and Thought*, "There is no doubt that there is a fundamental difference between Śaṅkar's Vedānta and Mahāyāna philosophy".⁴⁰ We have already referred to Sri Mahadevan's view that the Upaniṣadic philosophy is not of the nature of subjective Idealism and to say so is to misunderstand it.

The whole section entitled *Vijñāna in Buddhism and Vedānta* in this article seems to be written rather loosely and one may not agree with most of what is said there. Take, for instance, the following sentence: "Thus, to say all this is Brahman or Ātman amounts to saying that all this is Vijñāna, or, in other words, all this is a *Vivarta* (illusory manifestation) or *pariṇāma* (transformation) of Brahman or Vijñāna".⁴¹ Now a Vedantin will readily agree that the world is a *vivarta* (illusory appearance) of Brahman, but never that it is a *pariṇāma* (real modification) of Brahman. Soon after this our author says, "The words *citta*, *manas*, and *vijñāna* are synonymous".⁴² A Vedantin will never agree to this for *vijñāna* in the sense of Brahman and *citta* (which is a product of nescience) stand opposed to each other like light and darkness. This very sentence is enough to refute the author's view that *Brahmavāda* is *Vijñānavāda*.

On another page, in this very section, the author indiscriminately equates the conception of *Mokṣa* to be found in the different systems of Indian philosophy for, according to him, these "are

39. P. 568.

40. P. 593.

41. P. 569.

42. *Ibid.*

all, in fact, different expressions of one and the same thing."⁴³ It seems to us they are one in name only. There are fundamental differences among the various systems, with regard to the conception of *mokṣa*, and it seems neither proper nor even desirable to ignore these differences.

In an interesting and instructive chapter on *Buddhism in Indian Life and Thought* Sri Satkari Mookerji undertakes a balanced evaluation of both the merits as well as the demerits of Buddhism. The moral and the cultural contributions of Buddhism are well-known but not so well-known is its seamy side which, however, should not be ignored. Regarding the attitude of the Buddhists towards the Vedic tradition our author says, "The Buddhists were confirmed in their antagonism to Vedic tradition, and there was not the slightest chance of reconciliation. The Buddhists were truculent."⁴⁴ In contrast to the robust, healthy, and balanced attitude towards life of the Vedic Aryans, Buddhism fostered an unhealthy asceticism which "proved to be a veritable opium to the people.... Religion degenerated into a device of escapism. The spiritual and political degeneration was unwittingly hastened by the custodians of the Buddhist religion in India. The contempt for worldly goods became a dangerous craze and fashion."⁴⁵ The net result of this morbid attitude was that "India succumbed to foreign invasion...."⁴⁶ What was the depth and the sense of patriotism of the Buddhist monks in face of this grave national danger? "It is a sad commentary on Buddhism as a religion and the separatist tendencies of its adherents," says Sri Mookerji, "that these Sindhi monks had supported the Arab invaders and helped them in extirpating the Brāhmaṇa dynasty in Sind.... It is also a surprise that the Buddhists submitted to wholesale conversion, whereas the Hindus survived this onslaught and preserved their ancestral faith...."⁴⁷

We have endeavoured to give, so far, a fairly good idea of the contents of this volume along with our differences of opinion on certain controversial issues. But throughout our close study of this work our impression has been repeatedly confirmed that on the

43. P. 571.

44. P. 594.

45. P. 590.

46. *Ibid.*

47. P. 596.

whole we find here a faithful representation of both the letter and the spirit of Indian culture. The work is "true to the spiritual tradition of the land"⁴⁸ and at the same time it exhibits, at every step, "a sound historical sense."⁴⁹ Here is a work written by Indians from a genuine Indian standpoint which incorporates at the same time the modern historico-critical technique. The book does credit to the scholars concerned as well as to the publishers.

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48. P. 311. (Article on *Vedic Exegesis* by Srimat Anirvan).
49. *Ibid.*

BOOKS RECEIVED

1. *Our Experience of God*, by H. D. Lewis, published by George Allen & Unwin, Ltd., price 30s. net.
2. *Philosophical Papers*, by A. E. Moore, published by George Allen & Unwin, Ltd., price 30s. net.
3. *The Bhagavadgītā* (as a Philosophy of God-Realisation), by R. D. Ranade, published by Nagpur University, price Rs. 10.
4. *The Groundwork of Modern Logic*, by D. D. Mahulkar, published by East and West Book House, Baroda, price Rs. 5.
5. *Continuity and Number*, by B. Goussinsky, published by the author at Tel Aviv, Israel, price \$0/50 cents.

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