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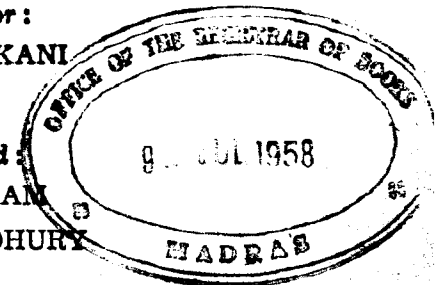
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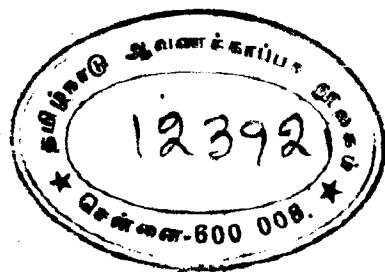
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THE PHILOSOPHICAL QUARTERLY

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The Meeting of East and West in Philosophical Method

by

HOWARD L. PARSONS

E. A. Burtt's article, "What Can Western Philosophy Learn From India?",¹ brings into focus one of the main differences between Eastern and Western philosophy. That difference has to do with how man may adequately know and describe his world. Burtt does this by illuminating some of the limitations in Western logic in the light of the Indian approach to the problems of descriptive knowledge. Thus there is posed the double problem — the differences between West and East in this regard, as well as their reconciliation. The result is suggestive, and I should like to pursue some of the implications arising out of Burtt's article.

Since our theory of knowledge about the world depends on our theory of the world, I shall consider (1) the nature of the world, as differently conceived in East and West, (2) some of the logical principles that should govern our knowledge of, or reasoning about, that world, as they have been or might be interpreted by the Eastern and Western world-views, and (3) the contrasts between Eastern and Western thought, with (4) a final summary and suggestion for their reconciliation.

I

Burtt points out that Western philosophy has, with the exception of speculative philosophy, patterned its procedures, aims, and

1. *Philosophy East and West*, V, No. 3 (October, 1955), pp. 195-210.

norms after the model of science. It has proceeded by a strict delimitation of its domain of inquiry, by rigorous definition of its terms and assumptions, by the unqualified application of rules of logical consistency, and by an unflinching and complete analysis of the topic before it. It has been distinguished by its work in the criticism of abstractions, in logic and epistemology, in the analysis of language, and in linking its task with the foundations and techniques of mathematics and the sciences. It has been dominated by a substance-attribute view of the world, by a symbolism which with its subject-predicate form reflects that view, and, in recent times, by the doctrine of clear and distinct ideas. The norms regulating its activity, as in science, have been clarity, definiteness, precision, rigor, coherence, elegance, and the like. Logic has become a powerful tool in the West — sometimes, as Burt indicates, more powerful in demolishing the arguments of one's opponent and in eliminating generally fuzzy conceptions and invalid reasonings, than in advancing positive truth about traditional philosophical questions.

Accordingly, "the world" for Western philosophers of this kind, so far as they have turned their attention to it, has been conceived as a world that justifies such procedures and norms, both as the ground on which they are constructed and the terminus by which they are used and tested. What kind of a world must that be? A world of discrete, atomic entities — autonomous, isolable, self-identical. A world of distinctions and relations which can themselves be clarified and ordered in the conscious symbolic systems of man's mind. A world of impressions which can be reflected. A world of matter and of mind, of fact and of reason which thinks about fact, of an ordered world and a mental activity which orders its thoughts after that world.

And what about the East? Philosophy there, as Burt indicates, has taken its rise from another starting point. The philosopher in India is concerned to achieve liberation, integration, fulfillment; and the philosopher in China desires to become a sage, merged with the wisdom of the universe. In both countries, therefore, philosophy becomes a means; exact analysis of limited problems and the rigorous application of logic to certain concepts are never for Easterners the goal of philosophy. Rather, the goal of philosophy is the goal of human living itself, and philosophy is employed as an instrument to facilitate human fulfillment.

This conception of philosophy — "involving new and intriguing possibilities for philosophic thought," as Burt says — constitutes a contrast to the Western conception, in both procedures and norms. Since in the East men, as philosophical, have been concerned with more than a logical mastery of certain selected entities and problems, they have turned their attention to the broad aspects, the pervasive wholes, the abiding concretions, the recurrent issues of human experience. The result is the uncovering of complexities and relations which substand the world of clear and distinct entities and which, in their qualitative richness, stretch away from and elude our perceptual as well as our conceptual grasp, and make that first world seem, as Whitehead has said, like a world of abstractions. While the philosophical man must not discard reason, he must recognize that it is effective and valid only within a limited range of experience and that it must be supplemented by other methods which reveal other aspects of experience — by authority, by scripture, by art, and by intuition. A primary philosophical norm is comprehensiveness, or comprehension, to be achieved by subtle sensitivity to the various sources of truth. This norm is itself a species of a generic norm, namely, integration — or, as it is usually expressed, integration with the ultimate principle of reality and value in the universe.

We may characterize these two world-views by listing some of the distinctive entities or attributes emphasized in each:

clear and distinct	vague and undifferentiated
determinate	indeterminate
absolute	relative
abstract	concretive
space	time
matter	value

What these entities or attributes represent are polar and complementary aspects required together for a more complete world-view that either East or West has alone provided. The column of words on the East refers to the world as concrete becoming. It is the world in process, in the making, involving not only the fullness of that process in all its manyness, complexity, and incompatibility, but also the vast realm of possibilities, with its truths and its untruths, its goods and its evils, its diverse data presented to process here and now. This indeed is the world of the East, with its

multifarious bazaars and altars and peoples, and with the numberless artistic and metaphysical systems of its fecund imagination. The world symbolized on the West is the world as abstracted from the world of immediate and concrete process. Indeterminate possibilities become, through the process of concrescence, determinate, and these determinations exhibit certain clear and distinct characteristics. They are now achievements, not processes or possibilities, with their distinct identities and differences and relations; and their natures and relations can be etched in the timeless and chaste space of logic, with its strict rules of inclusion and exclusion, and its rigorous orders, ruling out incompatibilities and enthroning pure reason to reign supreme.

While there are many differences to be found among Oriental thinkers, there is a strong consensus on the following points; nature consists in energetic activities or continuous changes; the processes of nature maintain their identity and change relative to other processes and to the whole; nature is marked by difference, opposition, strife, and destruction among the processes composing nature; at the same time these processes are interdependent and organic to the whole; the differentiated processes of nature evolve and are transformed; creation and destruction occur together; the present universe, like all things in it, has come into being and will pass away; the existential world and any process in it in its full concreteness of structure and quality, displays an indefinite number of aspects—and, as a consequence, our perceptions and symbolic accounts of natural processes must always be relative and limited and can never, as abstract, fully exhaust that concreteness.

But the logic of the West finds itself more adapted to, and more effective in, another world—or in another dimension of that single world of human experience of which East and West represent hemispheres and perspectives. The logic of the West is most effectively able to deal with that part of the world which is achieved and finished. That is the world of specific objects, precipitated out of the vast realm of potentiality and the onrushing processes of historical becoming: a world of finalities and not of evolution, a world of accomplished matter of fact and not of aspiration and indeterminate aim, a world of space and of definite objects occupying that space and not of time which like Chronos spawns its Titanic creatures of strife. It is a world of peace and compatibility—a world in which “there shall be no more sea”. In the words of K. C. Bhattacharya, it is the world of definiteness, arising

ing out of the background of indefiniteness. In Northrop's language, it is the determinate and discontinuous emerging out of the undifferentiated aesthetic continuum. It is the world of completion and, in its own way, perfection—the world as finished, worn out, fulfilled. What began as a process and project has now become subject and object for new process—providing data for fresh feeling or fresh thought. The dynamic event has become a “thing”. And each thing is what it is (Whitehead's category of “objective identity”);² it is distinctively itself, for all realization is finite; it is nothing else. There is no amalgamating or mixing or “confusing” of entities (Whitehead's “objective diversity”).³ This is the field of autonomous entities, spread out in space and displaying certain unchanging relations to one another—a field of entities abstracted from movement, change, and time, stripped of their historical evolutions and transformations. It is the world of the “specious” present, because, as with a single unmoving picture in a movie film, time is arrested and rendered irrelevant. In that world, therefore, the principles of identity, non-contradiction, and excluded middle rule without exception.

II

Let us summarize some major distinctions and relations between Eastern and Western thought.

Western thought, in science, philosophy, and religion, has tended to be deductive. The great thinkers in these areas have proceeded from first principles, intuitively given, and have been guided by the ideal of rigorous logical explication. Without slighting the achievements of the empiricists in scientific thought, we must say that the genius of science is revealed in men like Archimedes, Newton, Darwin, and Einstein—men adept at proposing hypotheses and drawing out their implications. Similarly, philosophy has patterned itself after the model of deduction, and most of the great philosophers have been mathematicians. In religion, Origen set the pace, and no one has ever matched the architectonic logic of St. Thomas' *Summae*. It is true that, as Whitehead has pointed out, the empirical temper of modern times has merged with and modified the deductive approach in science;⁴ and the result has been

2. *Process and Reality*, New York: The Macmillan Co., 1929, p. 39.

3. *Ibid.*

4. *Science and the Modern World*, Ch. I.

great power. Empiricism has affected philosophy less, and theology only slightly; and the results in those fields have been accordingly less noteworthy.

Eastern thought has tended to be non-deductive—intuitive in a sense, mystical in a sense, experimental in a sense. As Burt, Moore, and many others have pointed out, it has primarily aimed at the *practical* fulfilment of man; and if it soared into the heavens on the wings of speculation, it did so for the sake of seeking the problem and solution of human life more clearly and more comprehensively. Gandhi's autobiography is entitled, *The Story of My Experiments With Truth*. A strange title for a Westerner! For in the West one experiments with events to get truths for particular, contingent purposes far removed from personal fulfilment, the religious quest, and God. While Gandhi, unlike many ancient Indians, was an activist effecting broad social changes, and was influenced by Western thought, he was essentially an Indian (much like Buddha and Mahavira) in his independence, his dissatisfaction with useless speculation and ritual, his humanism, and his adventurous and radical experimentalism. Similarly, the "naturalism" of the Chinese is an expression of the opposition to philosophizing carried on in independence of the practical affairs of man, whether it be other-wordly speculation or the sophistries of logic. Chinese philosophy reflects, as Fung says, "the aspirations and inspirations of the farmer", living close to nature: "the philosopher only tells us what he sees".⁵

Second, Western thought has tended to aim at an absoluteness in its method, while Eastern thought has been content with relativity and approximation. The excitement felt by the Greeks when they first discovered the glorious clarity and certainty of mathematics and logic was never really lost to the Western mind. For though during the Dark Ages mathematics and logic went into eclipse, the crescent of the invading Arabs, bringing with them the lost learning of classical times, began to shine and grow and illuminate the world more brightly than the medieval manuscripts; and progressively, as men became disillusioned with theology, they had need of the inspiration kindled in them by the eternal light of logic and mathematics. The obsession with the certainty of logico-mathematical techniques increased as men became more uncertain

5. Fung Yu-lan, *A Short History of Chinese Philosophy*, pp. 19, 25.

with their aims; and finally, in the highly developed sciences and in philosophies like positivism, men found a seemingly adequate substitute for religious absolutism. Absolute method replaced absolute end. Means became be-all and end-all. But in the East men could tolerate plurality in the realm of means because they were absolutely certain of the end. Common sense, oral tradition, the scriptures, intuition, conscience, mystical experience—all the natural enemies of a critical philosophy in the West (since the sophists) which prides itself on clarity and system—become in the East the handmaidens of the thought that attempts to see life steadily and as a whole. Diversity of perspectives is an immediate and inescapable datum of our common experience; it is impressed upon us as we interact with the world and with one another. Hume, reflecting the physical science of his day, and the social intercourse of the 18th century coffee house and salon, saw that; Descartes, alone in his study, did not. Discounting the mysticism and asceticism of the East, we can see how Easterners are in the same case with Hume: if you begin with three men with three different viewpoints having a dialogue concerning religion, or with six men, all blind, perceiving an elephant from different aspects, then you predetermine the problems and solutions in metaphysics, epistemology, and ethics, in a direction quite different from that taken when you consider a piece of wax or introspect on your own states of thought or inquire into the ultimate nature of Newtonian apples and moons. In the agrarian and "tradition-directed" cultures of the Orient, philosophers have generally been more bound to, dependent upon, and responsible toward, their cultures than have philosophers in the West, where they have either occupied a fixed niche in a stratified society or else have been cut loose into independence, like Descartes. Thus, while science did not develop to a technically high degree in the Orient,⁶ the East would cope with differences between people and perspectives by a practical tolerance of empirical relativities and by the postulation of a final and absolute unity inclusive of all such empirical relativities. And in the West, where personal and cultural changes have come much more rapidly and copiously, and where differences between perspectives and peoples have been much more acute, science developed to a high degree (partly

6. See Joseph Needham, *Science and Civilization in China*, Vol. I, Cambridge: Cambridge University Press, 1954.

because of these very conditions), and with its deductive mathematical method became a pattern and a movement, sure and fixed, within a sea of uncertainties. When the lore of a tradition-oriented culture dissolves, men may turn to the science of navigation for guidance through the sea of change; and this is what happened in the West, though men still remain uncertain of their destination.

In the East a certain amount of uncertainty or variability in steering has been taken for granted; for men were certain of the distant shore to which they must sail for salvation, and of the values of the good life. Short of the supreme and transfiguring experience, experimentalism as a method—in East or West—always yields probabilities. This has been plain, in the West, from Hume to Einstein, and has been taken as axiomatic in Eastern thought. Even the supreme experience—carrying with it the human, practical, saving knowledge of ultimate reality and value—is, while always objective, always relative. Deduction then becomes practically dispensable. Deductive certainty is useless if it does not begin at a point of certainty, for the conclusion can be no truer than the premises, and that beginning point must be empirical if the conclusion is to have content; and if, on the other hand, deductive reasoning does begin with a certain premise, empirically arrived at, the Easterner is inclined to feel that such reasoning is likewise useless, for deduction cannot increase certainty and is, moreover, no substitute for what is given directly in experience. In the Eastern view, if we had a genuine experience of ultimate reality and value, we would feel no need to impose our particular (or relative) version of it upon someone else (as has been done in Western holy wars), if indeed we could give articulation to its full concreteness; nor would he feel compelled to “prove” it deductively to someone else (as has been done in the numerous “proofs” for God, the soul, reality, etc. in the West). Tradition and communal living give a silent and tacit certainty which no “inner-directed” culture, for all its anxious “proofs”, with its desire to overcome its isolation and estrangement, can match. We speak because we do not know, because we are seeking to find what we think and to explicate what our meanings intend, because we search for escape from the “labyrinthine ways” of our own minds. But, as the Chinese have said, when we renounce such efforts at knowledge, and forget, and become empty, then we may be filled with a wisdom which logic cannot supply; and, like Confucius,

having “forgotten to forget”, we may proceed to let the living process control thought rather than *vice versa*.

Modern thought in the West, through the development engendered by its own internal contradictions, has moved in the direction of the East in its emphasis on empirical probability. Hugh Miller has pointed out that the dethronement of classical thought came with three discoveries: the disestablishment of absolute geometry and the proof that it is physical hypothesis, the uncertainty principle in physics, and Goedel's proof of the incompleteness of number-theory.⁷ (There were other factors). The shift in viewpoint is summed up in Einstein's classical phrase demolishing classicism: “physical concepts are free creations of the human mind”.⁸ If necessities remain at all in science and scientific thought, they remain as particularities, or as invariant relations between particularities (laws of probability). A24

Logic in the West has suffered from the same blows. It has never fully recovered the balance which defined its serenity and certainty in the days before disturbing questions like those of “existential import” were raised. It has been found that the rules of inference applicable to existents, as in the traditional syllogism, square of opposition, and immediate inference, cannot apply to conditionals. Because the attempt to deal with existents and conditionals (in this sense) in the same system leads to contradictions, the tendency has been to separate traditional logic from modern logic, which deals purely with conditionals. The task of the latter has been put as follows:

The propositions of logic either are conditionals or are reducible to conditionals, and logic presupposes only to discover means of certifying conditionals to be necessarily true. Logic investigates what follows necessarily from the hypothesis of existence; it need not assert existence.... a determination as to what does exist is not within the province of logic.⁹

7. Hugh Miller, “The Science of Creation”, *Proceedings and Addresses of the American Philosophical Association*, 1950-51. Vol. XXIV (September, 1951), p. 31.

8. Albert Einstein and Leopold Infeld, *The Evolution of Physics*. New York: Simon and Schuster, 1951, p. 33.

9. From an unpublished paper, “Logic and Existence”, by Professor Leo Simons.

A basic form of such reasoning is as follows:

If A (antecedent), then C (consequent); namely, if (A) for every individual, if it is an S then it is a P, and there is an S, then (C) there is an S which is a P.

This form is an attempt to re-establish in logic the certainty or necessity which in Aristotelian and medieval logic was grounded on first principles reached through intuition and authority. The formulas of modern logic are algebraic; they aim to state an invariant structure for a certain range of contingent events or meanings. While classical logic sought to provide standards which could adjudicate disputes and regulate discourse,¹⁰ modern logic arises in the setting of science which finds itself *in medias res* and seeks to move from one fact to another by way of reliable inferences. Whereas ancient logic fixed its conclusions by first fixing its major premises and its rules—the “laws of thought” being the presuppositions of this universe of discourse—the only fixity to which modern logic can give allegiance is the general structure of facts of a certain kind. Indeed, the modern mind (in the U.S.A.) rebels against any kind of *a priori* fixity or “fix”, whether in the law courts or in business transactions. A “fix” suggests arbitrariness, subjectivity, and the imposition of prejudice upon reality. The facts should be allowed to speak for themselves. And the facts reveal the form.

But how certain is that form? The famous problem of the “justification of induction” remains to haunt modern logic. In the form given above, how do we know that the proposition, “If A, then C”, is true? It has been said in its defense that such a proposition—the law of implication—is a necessity of thought. But is not this law in part empirical, insofar as thought has empirical origins and termini? Do we not accept the proposition that a true conclusion must follow from true premises, because we have discovered specific instances of its being the case? And if the law of implication is existential and inductive, then how can reasoning based on it be perfectly certain? Again, the proposition, “If it is an S, then it is a P”, by similar reasoning, must be inductive, for the reference to the connection between S and P would be of no effect if particular S’s did not exist. But the argument fails deductively unless the said proposition can be asserted with cer-

10. John Dewey, *Essays in Experimental Logic*, Ch. VI.

tainty. Of course, in this argument, as in all kindred ones, one may disregard existence and adhere strictly to formal meanings; but then the argument becomes useless if no term whatsoever refers to existence (as it does in the above).

Hugh Miller has argued that inductive inference is necessary and certain, and that induction is a type of deduction. “It is the conclusion, not the inference, which is probable”.¹¹ Thus the following argument would be deductively valid:

If 50% of the rabbits we have observed are male, then probably 50%, approximately, of all rabbits are male. 50% of the rabbits we have observed are male. Therefore, probably 50%, approximately, of all rabbits are male.

That is, on the basis of our observations, we are compelled to make a statement of probability. But it may be asked what the nature of this inferential compulsion or necessity is. To the extent that the generalization is true that all samples are representative of their classes, and, further, that the rabbits we have observed are a sample, then the consequent follows. But while it may be true that all of the samples so far observed are representative of their classes, we have not observed *all* samples and *all* classes. But this objection may be sophistical. The main point is that the compulsion that asserts what *might* be is different from the compulsion that asserts what *is* or *must* be. The inductive leap from observations concerning past instances of a group to an assertion as to what might be observed concerning future instances is a *predictive* necessity. If one is not desirous of predicting, one need not feel such a necessity. The meaning of our past observations becomes *prescriptive*: they signify the requiredness of a certain expectation and act, which is unqualifiedly aroused, but which has a certain *probability* of being fulfilled. But in the case of deductive necessity the meaning is purely formal, the necessity arises out of the application of prescribed rules, and the results are absolute, that is, are not probable but certain.

Finally, the probable conclusion (resulting from the necessary inference) that 50% of all rabbits are male applies to the class and not to the individual rabbits. Particular individuals cannot be lifted up (without loss) into the realm of abstraction:

11. *The Community of Man*, p. 14.

a particular S is not the same S which is a member of a class. Thus the modern stricture, against traditional logic, that we cannot validly infer particular propositions from universal, hypothetical propositions, must hold also for modern logic; for conditional propositions cannot yield existential propositions. If the reasoning of a logic that employs generalizations in the form of conditional and not existential propositions is to be useful, it must draw those generalizations from existence. But as existence is not perfectly necessary but is probable, those generalizations must be probabilities (with the predictive necessity indicated), and the conclusions must be probable. And if the generalizations are definitional or logical (or empty), then they can lead only to empty conclusions, useless with respect to existence. Since probability in our reasoning results from its infection with fact, the only escape from this result is the arbitrary decision—made in the common usage of words, or by logical fiat—to abandon the examination of individual men for characteristics of animality and to decisively *define* them as animals. Our reasoning must proceed so that it cannot be contradicted by fact; yet at the same time it must, to be useful, begin with fact and end there. All reasoning moves between these two poles: our postulations determine what is given, and the given determines our postulations. And a too tenacious adherence to either pole, in neglect of the other, leads to an incomplete interpretation of experience and an inadequate way of moving through it and realizing its values.

A third difference between the thought in West and East has to do with modes of language and meaning.

On the face of it, Western science and scientific philosophy look positive and affirmative. But are they? How positive is a conclusion derived by one of many mathematics, or one of many logics? How determinate is a conclusion in a system of reasoning which itself is contingent and has limited application in space and time? On the other side, Eastern thought looks negative: Indian philosophy is chastened by the ever-present voice, "Neti, neti," and Chinese philosophy is forever negative in approach¹² and conscious of the pervasive *Tao* which does and undoes all things. Negative in passing and minor matters, the Orient aims to be positive in abiding and final values. In excluding the princi-

12. Fung Yu-lan, *A Short History of Chinese Philosophy*, p. 341.

ple of exclusion, it aims to be totally inclusive. In transcending what is superficially immanent, it aims to be more deeply immanent. In negating negations, it aims to affirm the principle which cannot be negated. Thus the longest way around is, for the Orient, the shortest way home. To be able to say something one may have to be willing to say nothing; and to be able to know anything, one may have to renounce all knowledge. To understand the flower in the crannied wall one may have to acknowledge the limits of one's understanding and (as some Western idealists would say) one's grasp of the total system of things which constitutes the sufficient reason for its being; and when one has reached the realization that each is in all and all is in each, mere experience, unutterable and mystical, may have to suffice. As Fung Yu-lan says, "One must speak very much before one keeps silent".¹³ Thus the silence, the near-silence, or the sometimes paradoxical and contradictory language used in the Orient is not just childishness or foolishness, as we in the West might say; or it is foolishness which, in the language of Taoism, is wisdom. It arises from an awareness of the limitations in our perceptions, our conceptions, and our symbols in representing our experiences and thoughts. Negation is a way of stating that we do not know all that is to be known, about one thing or everything, and it may release us into a more accurate, qualified knowledge of each individual thing (since each thing is in the world) as well as a cognitive reverence for the whole of things. Negation thereby may make us more positive, in both our knowledge of the world and our achievement of value.

We have already seen that Western logic, with its so-called "laws" of thought, attempts to be definite in its assignment of constant values to terms and its fixing of meanings in its universe of discourse. When it speaks and reasons, it severely limits its objects and their relations one to another. The shifting of identities; the contradicting of terms and propositions, cannot be permitted; the logic of language cannot allow it. But where Western thought tends to speak of the limited, the East tends to speak of the unlimited. The language of the West aims at specification and control in both thought and action; the language of the East is designed to express what has been received, or to relate the speaker to what cannot be expressed or controlled. In the West

13. *Ibid.*, p. 342.

the language of logical response is discrete, sharp, and incisive, reflecting a world that is through and through atomic. It deals with the irrational by Aristotelian laws, or (in mathematics) by an arbitrary Dedekind cut or (following Kronecker) by the denial that the irrational exists at all.¹⁴ Such a viewpoint comes into clearest focus in the skeletal scheme of 18th century philosophy and mathematics. Mumford remarks:

Clarity at the expense of life. But what clarity! Read Galileo, Descartes, Spinoza, Newton, Locke: it is like taking a bath in crystal-clear water. Their universe is clean, neat, orderly, without smells, without flavors, without the rank odors of growth, impregnation, or decomposition: above all, without the complications of real life.¹⁵

By contrast, Eastern thought paints a more complex picture of the world—in either the terse and suggestive language of the Chinese, or in the subtle distinctions of Indian thought, especially when directed to the phases and ranges of intensely personal experience. Oriental thought catches the qualitative flavor, the dialectical movements, the multifarious facets and complexities, the many-levelled hierarchies and progressive inclusions of the world. It portrays what the Western picture omits: "the soil, the bacteria, the mat of vegetation, the animal life...the dense atmosphere of actual experience,"¹⁶ and not just the barren outline of the human and natural landscape, rarefied and abstracted.

"Ideal" language, for some Western philosophy today, consists in tautologies—"empty" language which fully explicates the meaning intended. To know what you mean is the first requisite for a logician; the second is to follow the rules whereby meanings are validly combined. But in the East a thinker may not know what he means, in the sense that he can fully and exactly express what he experiences. He may possess certainty in his qualitative contact with individual things, and certainty as these contacts are multiplied and diversified and felt as a unit. But certainty of this kind is different from logical clarity, which is

14. E. T. Bell, *Men of Mathematics*. New York: Simon and Schuster, 1937, p. 521.

15. Lewis Mumford, *The Condition of Man*. New York: Harcourt, Brace and Co., 1944, p. 260.

16. *Ibid.*

certainty of another kind. To feel the qualitative and multiple world as one, does not mean muddiness or the undoing of the categories of objective identity and objective diversity.

Moreover, the Easterner, not living within a scientific or deductive tradition, has not felt the need to express his insights rigorously and to elaborate them in a systematic way. Eastern thought is not always explicit in its definitions and strictly logical in its procedures; it is suggestive, adumbrative, and sometimes jagged, and its method of exposition follows more the pattern of the proverb, the poem, the narrative, the informal essay. Because it portrays its objects in their depth, it is not always completely in focus, and there are gradations and shadows; there is a vagueness to objects in the background. In the case of Zen Oriental thought is downright sacrilegious toward the categories of logic, for it boldly and roguishly invokes contradictions in signifying what is ultimate. In the case of mysticisms, which have been in the main mothered in the East, the language is always contradictory. Why must this be? A preponderating impulse in the East has been to identify oneself with that quality or structure, that principle or experience, which lies within and around the mottled and ever moving world immediately presented to us—to merge one's own being with that Being variously called *Brahman*, the Higher Self, *Purusa*, *Nirvana*, *Li*, *Ch'i*, *Tao*, *Satori*. Easterners have been interested not only in one particular quality or relation which a given subject might have; they have sought to know it in its manifold qualities and relations. Whether the sage's "emotion follows the nature of things," as with the Neo-Confucians;¹⁷ whether he "responds to things, yet is not ensnared by them," as in sentimental Neo-Taoism;¹⁸ whether he must be "empty and without bias;"¹⁹ or whether, as in Ch'an Buddhism, the sage's mind is either a "bright mirror" or no mirror at all²⁰—the problem in China is not merely to dwell in the world, but to let the world dwell in one; the One should become one. In opening oneself to the myriad and indefinite number of entities in the world, one must not be narrowly restrictive, over-simple, preferentially partial, and statically exclusive; one must "entertain" the world,

17. Fung Yu-lan, *A Short History of Chinese Philosophy*, p. 287.

18. *Ibid.*, p. 238.

19. *Ibid.*, p. 224.

20. *Ibid.*, p. 256.

as at a party, come what may, with no stern host standing guard at the doorway of the senses and feelings. This means that S involves not merely S; it involves also the whole realm of what is not S. And p is not the only predicate of S; q, r, s, *ad infinitum* (i.e., non-p) are also. As Charles Morris²¹ has observed, the mystic, by responding to diverse symbolic objects, may develop simultaneously contradictory dispositions or incipient roles: one may be "both the fish that swims and the gull that dives," or like Ch'eng Hao have emotions that accord with the nature of things, yet of himself have no emotions.²² But in a deeper sense the mystic acquires a contradictory experience, which is reflected in his "primary" language. By exposing himself to the full concreteness of an event (or subject), in such wise that he can increasingly appreciate its own intrinsic qualities and the qualities displayed in its relations to its neighbors, in space and time, and in such wise that he can increasingly understand its internal relations and its relations to other subjects, he comes to feel and to know that S is more than S. And if by the act of empathy or *Einfuehlung* he feels a progressively heightened identification with all the events of his experience, much as he has discovered that S to be involved with all that is -S, then he can truly say that the universe is in him and he in the universe. The mystical experience is an experience of enhanced unity; it is a momentary balancing of conflicts and resolving of struggle. In the words of the *Gita*, it is the (temporary) conquest of the oppositional *gunas*: the mystic is "free from the pairs of opposites."²³ For in that dialectic identity of differences which is the basic cause of the development in things²⁴ there is a continuous shifting, first to the side of unity, then to the side of opposition; and the mystic experiences the eternal oscillation as it moves toward maximum unity. At that point differences tend to fade into the background, and the qualitative unity may become so intense that feelings of denial, negation, and renunciation come to dominate the experience or its subsequent interpretation.

21. "Comments on Mysticism and Its Language", *Etc.*, IX, No. 1 (Autumn, 1951), pp. 3-8.

22. Fung Yu-lan, *A History of Chinese Philosophy*, Vol. II. Translated by Derk Bodde. Princeton: Princeton University Press, 1953, p. 524.

23. pp. 45-46 (Ch. II).

24. Mao Tse-tung, *On Contradiction*. New York: International Publishers, 1953, p. 12. This view is anticipated in Chinese philosophy.

The primitive transmission of energy from one event to another provides the basis for mystical experience; on top of that comes the identification given in kinethesis, through the specialized senses; and on top of that comes the symbolic role-taking described by Morris. And as one becomes more and more receptive to things, directly or symbolically, one becomes full (and yet never satiated) in a way that bursts the bounds of logic. The mystical experience is so resistant to limits, so all-inclusive, so rich, that it leads either to the alogical attempt to talk about everything at once ("talking in tongues" or speaking in contradictions, like "dark light") — or to silence. It is so complete, in its identification of experienter with what is experienced, that the two merge into one. And it is so full, in its perception of the concrete things making up the experience, that one must call it a "void."

A logician may be flabbergasted with such freedom with words. Is all the slow, modest, and painful labour, by which man has achieved an understanding and control of his world, to be swept aside or disregarded by reckless mystics? Logic has already made a worthy start in setting its house in order, sweeping away the cobwebs of superstition, casting out the "idols," clarifying the "laws" and rules of sound thought, and resolving certain "paradoxes" through inventions like the theory of types. Formal logic, for example, tells us that any and every proposition follows from a contradiction. What can be concluded from the language of a mystic? Everything! Yet that is just what is aimed at: to have an experience (and to communicate that experience) of the source of all things, actual and possible. A logician cannot bear the burden of all things. To try to grasp all things at once, not to mention the attempt to express them, is an overwhelming task and an impossibility. So he deliberately selects some few things upon which to fasten his attention, and some few meanings which he can more or less understand, and proceeds to trace out some few connections between those things and other things by tracing out the connections between his meanings. Concentrating on a few trees, he cuts a small path into the woods of the world. The world as such would engulf him, and his reason. But the man of the Orient wants to know whether the logician can see the woods for the trees, and whether he knows the direction which his path is taking.

To live in the world, to pursue one's own good, to get what one wants, to have one's way with the world — this has been

the purpose of Western man. To allow the world to live in one, to permit it to pursue its purposes in one and have its way with one²⁵—this has been man's orientation in the East. Limitation, convergence, logic have marked the one; infinitude, divergence, mysticism, the other. In the West, man goes out and conquers the objects of the world, one by one. In the East, he is conquered by them, in all their plurality and all-embracing oneness.

We are thus led to a final distinction. Because Western thought deals with what is and with the general relations that hold for all things that exist, it does not by the same token deal with individualities, contingencies, and growth as such. It may define laws or general tendencies that pertain to individuals, probabilities, and growth, but such laws do not predict the behaviour of individuals as such. In the realm of logic, the notion of necessity or causality is a strict one: as there cannot be more in the effect than in the cause, so there cannot be more in the conclusion than is implied in the premises. Logic aims at balance, at equation, at tautology. Hume's revision of the Scholastic concept of cause—changing "impartation" to equivalence of cause and effect²⁶—was perfectly adapted to the necessities of an incipient science; for in his view nothing more can be attributed to an unobserved cause than is observed in its effects. In logic, this means that a conclusion cannot be derived from anything more than its premises, and that a conclusion, to be fully adequate, must be implicit in its premises. The law of implication ($p \supset q$), as applied to events, means that if the event p as cause is given, then it *must* be followed by the effect q .

Among the several reasons why this kind of logic was not developed in the Orient was the consideration that empirical prediction of effect from cause, especially in human matters, is not always possible. More may be displayed in the effect than in the cause. Thus both Indian and Chinese philosophy, implicitly and explicitly, anticipate the Maxwellian doctrine of "singulars," the Marxist transformation of quantity into quality, and the theory of emergent evolution. Transformation—growth within or toward the ultimate—is a basic religious principle in the East. The Buddhist and Nyaya-Vaiśeṣika philosophies teach that the effect does

25. The expression belongs to Charles Morris.

26. Edwin A. Burt, *Types of Religious Philosophy*. Revised edition. New York: Harper and Brothers, 1951, p. 226.

not exist in the cause antecedent to its production.²⁷ The Confucian *Ho* or harmony signifies the emergent quality when differences are brought together in a certain way.²⁸ The science and the scientific philosophy of the West has thus been concerned with the basic relations of formal logic as applied to the understanding and control of nature, while the Orient has been attentive to the creative concrescences of nature which elude and transcend those relations. As S. K. Maitra has put it:

Reality as Value is beyond the range of the categories. This is the reason why . . . Reality is described by means of contradictory epithets . . . These contradictory predicates only prove that the Ultimate Reality is to be conceived as a Value and not as a Being or Existence . . . If A is the cause of B, and if A and B are both existents, then A must be greater than B. But if A and B are values, then a very small value A may produce a very great value B. In fact, the logic of Value, or as we may call it, the logic of the Real, is very different from the logic of Concept. Here the causal law is transformed into the law of end and means. The principle of this law is just the reverse of that of the causal law. Here a finite means produces an infinite value . . .²⁹

It has been argued by some in the West, notably Whitehead, that the concrete processes of value are more basic to the world than the abstract structures of fact. If this is true then our concept of nature has to be re-written and the views of East and West may be brought into harmony. In the light of this suggestion, the equations of the sciences must be seen as convenient generalizations for controlling process, required because equivalence is the strictest kind of necessity, but as inadequate to the complex transformations occurring. The biologist C. Judson Herrick has written:

The formula written by the earlier chemists, $2H + O = H_2O$, is now outmoded. The equality sign is replaced by an arrow, an energy factor is included, and also a factor of pattern of organization. The revised formula expresses, not a

27. Chatterjee and Datta, *op. cit.*, p. 259.

28. Fung Yu-lan, *A Short History of Chinese Philosophy*, p. 174.

29. *The Spirit of Indian Philosophy*. Benares: S. K. Maitra, 1947, pp. 182, 184, 192.

balance but a process, and this process is directive, not random.³⁰

Is the world (in its whole or in its parts) a story or a syllogism, a development or an equation, a work of art or a work of science? The East has viewed it as a process, unfolding itself; the West has seen it as endowed with order, in space and time. The reconciliation of these two views can be discerned in the biological formula given above, which unites both viewpoints. If we distill out the order of our experience and discard the process, we are left with pure form, such as the tautologies of logic and mathematics; if we expel the order and concentrate on the quality, we are left with pure quality and a substratum of change that, for want of a standpoint and structure, becomes mystic changelessness. But the primary datum of our experience is a qualitative movement which is *more or less* ordered. There is a logic in events, but it is not perfect, as Plato saw, because events change, interact, unite, and are transformed; there is a movement toward symmetry, never completely fulfilled; there is an activity which, apart from order, would be wild and chaotic, but which, because of that order, has its energy transformed into the direction of development and plot. Thus the determinism of Western mechanism, true to the degree that the past determines the present ("Whatever is determinable is determined"³¹) must be supplemented with the doctrine of emergent evolution. Similarly, the Buddhist and Nyaya-Vaiśeṣika doctrine of *asatkārya-vāda* (the non-existence of the effect before its production) must be qualified by the Sāṅkhya and Vedānta view that the effect is in some sense pre-existent in the cause³² and that necessity is genuine.

One may learn a great deal about the world if one employs the principles of logic: science bears testimony to that. But one may also learn something about the world through exposing oneself to those processes and transformations of process which cannot be fully grasped by the orders of the understanding and whose issues cannot be fully predicted or controlled by the causal

30. "A Biological Survey of Integrative Levels", in *Philosophy for the Future*, edited by Roy Wood Sellars, V. J. McGill, Marvin Farber. New York: The Macmillan Co., 1949, p. 224.

31. A. N. Whitehead, *Process and Reality*, p. 41.

32. Chatterjee and Datta, *op. cit.*, p. 259.

mechanism of our scientific techniques or comprehended by our metaphysical categories. If this is not true, the West has little to learn from the East or from its own artists. And, contrariwise, if it is not true that science and logic reveal something about the world, then the East can gain little from its contacts with the West. But both of these propositions are true.

III

Our implicit conclusion throughout has been that the modes of thought of East and West belong together. And there are many indications that they are coming together, either through the stimulus of their own internal developments, or through the challenge presented by confrontation with one another, or both. One of the main keys of Indian thought today, as expressed in men like Aurobindo, Bhattacharya and Radhakrishnan, is "integration," which seeks to incorporate the scientific and evolutionary emphases of the West with the intuitive and aesthetic approach of traditional India. And Chinese philosophy for the past century has been profoundly touched by the influence of Western science and philosophy, culminating in the merging of Marxism with a way of thought which, in Joseph Needham's words, is "in extraordinary congruity with the ideas of dialectical materialism, descended from Leibniz through Hegel."³³ At the same time Western thought, through its own critical self-analysis and through an examination of the basic notions of physics and biology, has moved in the direction of Eastern modes of thinking—seeing its logic and science in the larger setting of feeling, value, process, and the complexities and transformations that characterize nature. Even the basic presuppositions of thought in the West have come under sharp scrutiny. In logic, "many-valued" logics, whereby degrees of truth or certainty may be determined, are now in use; and in mathematics, Brouwer and others have questioned whether the law of excluded middle can be applied to infinite sets.³⁴ And it has been suggested that the Western internecine conflict between the analytical and "ordinary language" schools on the one hand, and the philosophies of "process" and "existence",

33. In a review of *Chinese Thought from Confucius to Mao Tse-tung*, in *Science and Society*, XVIII, No. 4 (Fall, 1954), p. 375.

34. See also C. T. K. Chari, "On the Dialectical Affinities Between East and West (Part Two)", *Philosophy East and West*, III, No. 4 (January, 1954), pp. 321-336.

on the other, can be resolved when we see that the one pays attention to the static and substantive character of things while the other dwells on the dynamic and evolving aspects of experience.³⁵ This proposed union of diverse perspectives in the West echoes, amplifies, and advances what is occurring in the interactions of East and West; for the philosophical problem is essentially one everywhere, namely, the problem of weaving into a comprehensive whole the diverse items of our human experience.

Thus, as the meanings of the cultures of the world meet and grow together, so do the meanings of the individual man and philosopher emerge into new syntheses: the two processes are reciprocal. And the movement toward a unitary point of view is inevitable, since man is unchangeably human, and since all the elements basic to and present in each human experience and each adequate human philosophy are implicitly present in all human experiences and philosophies. But we need one another, with our diverse interests, perspectives, and values, to make clear to us what we have missed, or neglected, or minimized, so that our particular experience, as well as our philosophical interpretation of it, may become more completely and concretely *human*, more rich in quality and structure, and more integral within itself and in relation to the view-points of others, while at the same time maintaining and developing its distinctive individual character. In this sense the East and the West require each other; they symbolize those human differences of experience and interpretation which define man's existential situation and predicament, and which, lest man destroy himself by indifference or hostility, must enter into creative interaction and thereby reveal to us continuously what we are and what we can become, what our world is and what it is becoming, and how we are ever bound to and separated from our neighbors and the world by our abiding identities and differentiations.

35. John H. Randall, Jr., "Talking and Looking", Presidential Address, American Philosophical Association (Eastern Division), 1956.

Knowledge by Symbolisation

by

G. R. MALKANI

All our knowledge needs symbols. But these symbols perform a different function in different forms of knowledge. At the lowest level we might say there is knowledge of the pure symbol, at the highest level it is knowledge that has for its object nothing short of Absolute Reality.

We have mathematical knowledge. But it is not knowledge in a literal sense. It is not knowledge of *reality*. Mathematics deals with symbols only. These symbols do not symbolise anything in particular. They do not directly refer to reality. They are pure symbols in this sense. How is it then that we call mathematics, knowledge? It is because in mathematics we know truths which are true within the limits of our definitions and postulates. They are truths about certain thinkables only. So far as reality can be subsumed under those thinkables, they are true about reality as well. We may not get, in reality, points, lines and planes. But since it is through abstraction from real things that we get these conceptual entities, the truths about the latter are also truths about things. So far as actual mathematical knowledge is concerned, it is purely symbolical, because it refers to certain thinkables only.

We get *actual knowledge* in sense-experience and in science. But even here we do not know reality directly and without symbolisation. As soon as we begin to know or to objectify, we make use of the symbols of language. We have no knowledge without these symbols. We cannot think without language. To think is in a sense to speak. When we think within ourselves, we are also speaking to ourselves. The most general character of reality therefore is that it is speakable. The symbol, however, has a further function here. It has *literal meaning*. It refers beyond itself to reality. Here is a case of genuine knowledge through the symbol.

To use the symbol meaningfully, we must learn its use in experience. The use of the symbol is governed by its reference

to reality and by the rules of the language called its grammar. It is natural to suppose that as we learn a language by reference to reality in sense-experience, so we must use it to refer to objective reality which can be sensibly known. As we learn, so must we use. This is the only meaningful use of language. Every other use of language for knowledge would appear to be meaningless. Scientific knowledge is based upon sensible intuitions. All scientific concepts and theories are therefore ultimately analysable in terms of those intuitions. Metaphysical knowledge, on the other hand, can hardly claim to be genuine knowledge. It is not based on sensible or any other recognised form of intuition. Its propositions are therefore meaningless. They imitate the form of scientific or commonsense language, and thus create an illusion of meaning. The moment however we analyse them, we see through this illusion. They are seen to be non-sensical. It is the business of true philosophy to expose the non-sensical character of all so-called metaphysics.

Let us then accept the direct reference of the symbol to the symbolised in all genuine knowledge. We may now ask, what is the nature of the relation between them? The most natural answer would appear to be that a complete symbol in the form of a proposition *represents* or *pictures* an objective situation; so that when we know the proposition, we know an actual fact of the objective world. The truth of the proposition is thus safeguarded. This way of putting it does not create a separate, and an insoluble, problem of truth. All truth is ultimately based upon propositions which directly refer to a reality that can be sensibly known.

This way of stating the relationship of the symbol to the symbolised, however, is open to certain objections. (a) When we have a picture on one side and the original on the other, we can at least compare the two, and know how far the picture is true to the original. In the present case, that is not possible. We do not know two things independently which we can then compare. We know the symbolism all right. We know that it refers to reality. But we do not know this reality *independently of the symbolism*. We know it only in so far as it is symbolised. A reference to reality which cannot be substantiated through independent evidence is as good as useless. It may therefore be dropped as itself meaningless. We have a picture without the original. If that is so, we are left with the symbol and its use as prescribed by the rules of a language or the syntactical use. This reduces knowledge to subjectivism.

It is a matter of symbols only and their use, and not a matter of knowledge of reality.

(b) There may be a sense in which the symbol represents the truth about things. But then it should do this *invariably*. It should not sometimes represent the truth, sometimes not represent it and even misrepresent it. In all comparable situations of direct reference to reality, it must function just in the same way. But then erroneous propositions should not be possible. An erroneous proposition refers to reality just like the so-called true proposition. Both refer in an identical manner. Then how can we interpret them differently, and call the one true and the other false?

(c) Let us now admit that there are propositions which truly represent reality to us and propositions which do not. But how do we know the difference? If we examine the propositions themselves, they both equally refer to reality and seek to represent it to us. We cannot declare either of them, as the result of this examination, to be either true or false. What enables us to do so is a purely subjective criterion,—the reference to the whole system of our knowledge or the criterion of coherence. But then we give up for good the criterion of direct sensible awareness of reality on which this whole theory of the meaning of propositions is based. It was at least sensible to suppose that truth is known directly and the propositions too are verifiable directly. Now we have to give up this criterion, and accept another which has no reference to objective reality as such, but only to the system of knowledge which is a purely subjective affair. All empiricism leads ultimately to scepticism and to subjectivism.

(d) All symbolised knowledge suffers from internal weakness. We may be said to know the symbol, not that which it symbolises. We can truly say that our knowledge is a way of speaking only or using names, not a way of uncovering the truth. It is rightly said that the world is *begun in speech*. It is a matter of names only. The real truth is beyond words and beyond speech. If this truth is to be known, it must be self-revealing to us; and if language is to be used in our knowledge of it, it must be used in a new sense,—as a symbol of a symbol. Language is symbolic ordinarily; when it is used to pin-point a thing which is beyond all words and beyond all symbols, it has a new symbolic function added to it. Reality is not literally meant; it is only symbolically known, and then known perfectly.

If now a symbol is legitimate in knowledge, it must point to something in reality. Let it be admitted that substantive words and words that stand for a quality, a relation, a class, an activity, etc.,—in fact, anything that can be sensibly known,—do point to something in reality, and have therefore literal meaning. It will however be seen that every meaningful word has a universal import. Only proper names have no such import. They point to one thing only, something individual and unique. But proper names are not an integral part of a language. They *express nothing*. They are mere signs tagged on to entities. They are in this sense quite arbitrary. They therefore naturally mean nothing. If we want to *know* an individual thing, we do not use a proper name; we describe the thing in common terms. But how can we be said to know an individual through words that are common? A description in common terms is bound to be inadequate, even if it is supposedly true. All we can say is that it can be sufficient for our purpose of distinguishing one unique entity from another and of recognising it. In the end, we must realise the inadequacy of all our descriptive formulae for the knowledge of reality as it is in itself. As it is in itself, it is nothing universal or common. It is essentially individual. It can never therefore be fully or completely described, if described at all. There is always more in it than we can apprehend in terms of certain generalities. If we adopt a non-lingual symbol and point to a thing with our finger, we can evidently be said to know the individual. But once again we are defeated. The finger merely directs our attention. It says,—look this way. When we look that way, we have still to know the thing in sense-experience which uses common words to determine knowledge, express it and communicate it. There is no getting out of the limitations of our language and of our knowledge dominated by it.

It may be asked, but how far does the inadequacy after all go? Does it go so far as to misrepresent the thing to us or to put us in error about it? Now it is at least clear that what we do know of a thing is very little, almost infinitesimally small, in comparison to what we do not know. Our ignorance is unlimited. However much we know, the unknown still remains undiminished, unreduced, infinite. No quantity, however great by our human social standards, can stand comparison with the unlimited and the infinite. The infinite will always remain infinitely greater than any finite number or quantity. Between the thing in itself or in its wholeness and our knowledge of it, there is a difference of

quality, not of quantity. The question arises, do we know reality or the thing at all? Is not our knowledge of it in terms of certain generalities wholly inappropriate and untrue to it? We are merely describing what is in itself indescribable. All our descriptions are conceptual and subjective. Reality, which is not subjective, can only repudiate them. We are talking our own language, not the language so to say of reality itself.

The real character of our knowledge is thus the very opposite of what Plato took it to be. Plato thought that the only real knowledge consisted of ideas, which were fixed and eternal. We have seen on the other hand that all our knowledge, being conceptual or ideal, is foreign to reality. It is erroneous knowledge. What we must seek to know is that in reality which is beyond the concept, which is indescribable in any language, and which is wholly in itself.

Is such knowledge possible? It may become possible through a language which transcends its literal function in our experience and symbolically points to a reality which is beyond the symbol and inexpressible in any language. Words can have a literal meaning, and they can also have a symbolic meaning. The former has value for common-sense and science, while the latter has value for the knowledge of absolute truth.

It is the contention of Positivists and many others that language has literal meaning when it refers to reality that can be directly sensed. The word 'dog' for instance stands for certain sense-data, which we put together to construct in thought the entity called the physical thing we call dog. The word 'dog' has literal meaning because it stands for or symbolises the sense-data in question. Ultimately it is our outer or inner perception that gives meaning to words. Now the question arises, what about words which the common man uses, but which are not thus based on any perception? Either they have no meaning, or they have a meaning in terms of certain other aspects of our experience. After all, our experience is not only cognitive. It is also emotional and volitional. Instead of condemning all such common words as meaningless, it is more reasonable to interpret them in terms of our feelings and volitions. And that is exactly what is done by all those modern philosophers who have leanings towards a radical empiricism. They do not accept any science, called metaphysics, which can give us knowledge of super-sensible reality. But if there are words relating to this reality which are used by the

common man meaningfully, they must be interpreted differently as indicated above. This will do least violence to common-sense and usage.

We take for instance the religious concept of God. God stands for nothing which can be a possible object of a cognitive experience. It is therefore meaningless cognitively. But since people do use the word meaningfully in their communication, we must seek this meaning in our non-cognitive attitudes. God stands, let us say, for something which can evoke an attitude of worshipfulness and of reverence in those who use the word significantly. To speak of Him therefore as of an existing and knowable reality is to speak of Him in a language which has no meaning. In the same way, the ethical terms 'right' and 'wrong' stand for nothing which we can cognitively apprehend or judge. They can be analysed in terms of a feeling of approval, etc., or a resolution of the will, or a command, etc. Since we cannot eschew the use of these words in common speech, we are free to make a recommendation on the basis of common experience to use them in a certain way.

So far as this analysis of religious or ethical concepts is concerned, it does not appear to be satisfactory. The term 'God' may evoke certain feelings. But it cannot be equated with those feelings. How is the feeling of worshipfulness itself possible, if there is no belief in an existing entity called God? This belief is clearly an intellectual or cognitive attitude to reality. If the belief is found on analysis to be quite irrational, having no basis in any possible cognitive experience, the feeling of worshipfulness cannot arise. The element of feeling may be quite prominent in the way we use the word 'God', but we cannot divest this use of all cognitive meaning. We may be said to *know* in a sense the sort of entity God is supposed to be.

We know the meaning of the word 'God' from scripture. This meaning makes some sense in our own experience. We are told that God stands for a certain kind of being. We know 'being' when we know anything at all. God then has being or is being. He is a possible object of knowledge. We may not know Him fully or directly at present. But His being as defined by the scripture has meaning for us. His being is not material but spiritual, let us say. We know what is spiritual being. Any being that is intelligent or functions intelligently is spiritual being. Man is certainly spiritual in that sense. Our intelligence functions cognitively, volitionally and emotionally. On the same basis we can understand

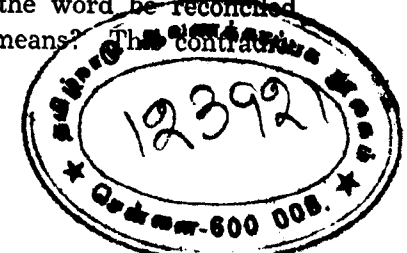
that the intelligence of God is omniscient, omnipotent and full of infinite joy. Brahman, the Perfect Spirit, is described by the Upanishads as Absolute Reality, Pure Intelligence and Infinite Joy. This is meaning which we can understand. It is not divorced from our actual experience. Only the knowledge of such an entity is not a present fact, but a problem for us. It is however a meaningful problem, not a non-sensical one. Such a thing can be, only we do not know it. The problem may not be real for us, if we are not interested or if we are sceptical to begin with. But it is certainly not a meaningless problem for those who have it.

The key-word, evidently, in the meaning of the word 'God', is the *spirit* of man or the *self* of man. If then we can pursue the knowledge of the self of man, we may perhaps get more clues for the knowledge of God. The Upanishads declare that the Great God (*Brahman*) is no other than your own real Self (*ātman*),—*tattvamasi*. Are we not on right lines of actual human experience when we approach the Great Truth in this way? The Great God may be searched within the confines of human experience, and may be found where man's own inmost Self lies. We have merely to analyse for this purpose our knowledge of our own Self.

Whatever the self may be, it is indicated by the use of the word "I". This *I* stands for no common object or socialised object. We cannot say meaningfully, *this is I*. The *I* is absolutely to be distinguished from anything that can be understood as *this* or as object. Neither the physical body nor any mental object can take the place of *I* or function as *I*. Here is something that is qualitatively distinct from every known or knowable object; and yet it is meaningfully spoken, and when it is spoken everybody understands the meaning. What is this meaning which all understand? It is the meaning which the *I* reveals in the speaking. It delivers itself whole and entire as the speaking *I*, and therefore not to be known in the objective attitude or as *this*.

This is our starting point in the knowledge of the self. Here is an entity that is spoken meaningfully, understood by all hearers, and yet not known as object. It is a unique kind of entity. Only one thing can be significantly spoken as "*I*". Still there is a contradiction in its being. On the one hand, the word *I* stands for an entity which is no kind of object; and on the other hand, the word has a literal meaning and stands for a certain unique entity. How can this literal meaning of the word be reconciled with the non-objectivity of that which it means? The contradiction

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tion can only be removed if we suppose that there is here a confusion of two different strata of being,—the pure spirit that cannot be literally meant and is essentially self-revealing and the mental object called the ego, which can be literally meant and which is not self-revealing. The *I* is the meeting point of the true subject and the object or the knot of the spirit and the not-spirit. We must resolve this knot by analysing it into its respective elements. The true Self, through ignorance, is confused with the not-Self. The confusion can only be dissipated through discriminative insight. There is a clear distinction, in our experience, between the *I* and the not-*I*. This distinction must be carried further into the being and the nature of *I* itself, till we get at the pure Self that is confused with nothing beside it. That Self will veritably be the Absolute Reality called *Brahman*.

There is a literal meaning of the word *Brahman* based upon our experience of the intelligent being of man. Similarly, there is a literal meaning of the word *I* denoting the finite self of man that functions in waking life and that passes through different states of sleep, dream and wakefulness. Neither is an absolute truth in itself. There is a contradiction in each. This contradiction is only removed when the essential being of *Brahman*, the Infinite and the Great, is identified with the essential being of the self of man that is immediate (*pratyag*), self-revealing (*svapra-kāṣa*) and non-objective. Language here becomes symbolic, inas-much as the literal meaning of words is used to point symbolically to the Absolute Truth which cannot be literally meant and which is literally inexpressible in language. This is the only legitimate use of the symbolic function of language in the knowledge of the Real.

Can we now say that language is inadequate for knowledge? It is inadequate if it is interpreted literally. It is not inadequate if it is interpreted symbolically. In fact, language provides the only method for the achievement and the communication of knowledge. How can it be inadequate for its task? There is nothing in earth or in heaven that language cannot body forth or communicate. Where thought can reach, language can reach too. The unspeakable can yet be spoken as unspeakable.

Implication and Facts *

by

M. N. RASTOGI

A problem that has faced the logicians is "What is that relation in virtue of which we validly deduce one proposition from another?" According to Aristotle the 'dictum de omni et nullo' explains that relation. The dictum is stated variously, one form being: "Whatever is predicated, whether affirmatively or negatively, of a term distributed, may be predicated in like manner of anything contained under it". (Keynes). This principle is based on the view that every proposition is of the subject-predicate form and asserts a relation between classes. Whatever is predicated of the whole class may be predicated of a part of it.

Modern logicians have criticised the Aristotelean analysis of propositions and deduction. Every proposition is not of the subject-predicate form and does not assert a relation between classes. Therefore, all deduction cannot be explained by Aristotle's dictum.

The relation in virtue of which we can deduce one proposition from another is ordinarily called 'implication'. Russell says, "Now in order that one proposition may be inferred from another, it is necessary that the two should have that relation which makes the one a consequence of the other. When a proposition 'q' is a consequence of a proposition 'P', we say that 'P implies q'. Thus deduction depends upon the relation of implication, and every deductive system must contain as many properties of implication as are necessary for the legitimate ordinary procedure of deduction'. (Principia Mathematica, P. 90).

Moore uses the word 'entailment' in the same sense in which Russell uses the word 'implication' in the lines quoted above. He uses the word 'entails' to express the converse of 'follows from', and explains it by giving examples. He says that 'follows

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from' must be understood in the sense in which from the proposition with regard to any term, that it is a right-angle, it 'follows' that it is an angle, and in which from the proposition with regard to any term that it is red it 'follows that it is coloured' (Philosophical Studies "External and Internal Relations", pp. 284-5, 291).

(But, what is the nature of implication? Extensional logic tries to interpret it on the basis of truth values of propositions and modal functions of these values, while intensional logic interprets it on the basis of the meanings of propositions in relation to one another. Extensional interpretation is given by Russell and Lewis, and intensional by Nelson. We will consider both the interpretations and try to see how far they are satisfactory).

Russell distinguishes between 'material' and 'formal' implication. The relation in virtue of which it is possible validly to infer is what he calls, 'Material implication'. He defines 'P implies q' as 'Either P is false or q is true'. In symbolism, $P \supset q = . \sim PVq$. This is equivalent to saying, "It is not the case that P is true and q is false." He argues, it would certainly not be maintained that " $2 + 2 = 4$ " can be deduced from "Socrates is a man", or that both are implied by "Socrates is a triangle". Russell's material implication is a disjunctive contingent statement. It is 'as a matter of fact'. The relation between the implicans and the implicate is not a logical relation. This is not the sense in which we ordinarily use the word 'implication'. In ordinary usage the relation is believed to be logical, and therefore, necessary. It is in virtue of this necessary connexion between the antecedent and the consequent that q can be deduced from P when 'P implies q'.

Though material implication cannot be identified with ordinary implication, is Russell's 'formal implication' what is ordinarily meant by implication? By 'formal implication' Russell means 'general material implication'. It asserts that in every case of a certain set of cases material implication holds. For every value of x, the proposition 'x is a man' materially implies 'x is mortal' — this is formal implication. But no repetition of the cases of two facts together can produce a logical and necessary connexion between them which is the very essence of implication. Though in virtue of a logical connexion between them, one can be deduced from the other, no empirical repetition of these facts together can produce a logical connexion. To think of that is to put the cart before the horse.

Lewis advances the concept of strict implication to explain the problem. He defines it in terms of impossibility and negation. That one proposition 'strictly implies' another means, according to him, that 'it is impossible that both the former and the contradictory of the latter be true', or in symbolism, $p \supset\!\!\!\supset q = . \sim (p \cdot \sim q)$ where $\supset\!\!\!\supset$ means 'strictly implies' and $\sim$ means that the proposition following it is impossible. Lewis' concept is defective in as much as it makes use of an undefined notion of 'impossibility'. Impossibility, again, may be either logical or empirical. The impossibility of 'this is red' being true, and 'this is coloured' being false is a logical impossibility. The impossibility of 'Ram is a man' being true and 'Ram is mortal' being false is an empirical impossibility. From 'Ram is a man' we can never validly deduce that 'Ram is mortal'. The impossibility of 'Ram is a man and all men are mortal' being true, and 'Ram is mortal' being false is a logical impossibility. It is in virtue of logical impossibility of the antecedent being true and the consequent being false that we can validly deduce the latter from the former. The paradox of strict implication that 'a necessary proposition is strictly implied by any proposition and an impossible proposition strictly implies any proposition' — arises if we interpret impossibility as an empirical impossibility. Logical impossibility of the truth values of two propositions always refers to a logical connexion between them.

But, what is that logical connexion between the propositions? Formalists like Von Neumann and David Hilbert may insist on calling logic a game with meaningless symbols. But reflection shows that it cannot be isolated from any realm of being, cannot be confined to the analysis of symbols apart from what they symbolise. Form cannot exist without matter. Pure form is a mere abstraction and as such cannot be the object of the study of logic. Logical relations are not relations between symbols but between the objects they symbolize. M. Cohen rightly remarks, "The Laws of consistency are not arbitrarily made by our fiat but are imposed upon us by the world in which we live, or the world which we study". (A Preface to Logic p. 92).

According to Nelson implication is a 'connexion between the meanings of propositions in relation to one another'. There is no implication independent of meaning. The meanings of both the propositions are required to determine the relation. Truth values are not sufficient. They are external. Implication is an internal relation.

Every proposition expresses a fact which is its meaning. If it is asked: What is the fact expressed by a negative proposition like 'there is no table in this room?', the answer is that there cannot be absolute negation. All negation implies affirmation. At least negation is a fact. The Vaisheshikas regard 'negation' or 'Abhav' as one of the Categories.

Now what is the relation between the facts expressed by the antecedent and the consequent in implication? Are they totally different from and independent of each other? If it is so, relation becomes an impossibility. If we admit external relationship, we commit the fallacy of infinite regress. The only other alternative is to admit an intrinsic relation between them. We must admit that the antecedent is a 'whole' and the consequent is its 'component'.

The meanings or facts implied by a proposition are infinite, because any explicit fact refers to the whole universe. Here arises the problem of negation. Negation, as de Morgan and others have said, always divides the Universe into two, and since 'all determination is negation', every fact involves a reference to the rest of the Universe. Macrocosm is in the microcosm. In this sense every proposition is a true universal. But the implication of a proposition expressed at a particular moment is limited and partial. The whole meaning of a proposition is the logical product of all the partial meanings

If P implies q
& „ P „ r
& „ P „ s
and so on

Then, P implies q.r.s ad infinitum

If any proposition involves a reference to the whole of the universe, does it not mean that we can infer every other proposition from a given proposition? Certainly, an omniscient being can do so. But our limitations stand in our way. For any inference, as Johnson points out, two kinds of conditions are required — constitutive and epistemic. Constitutively a true proposition implies all other true propositions. But we may not be able to know all of them. What we know to be implied by a particular proposition at a particular moment is limited and partial. The limited

knowledge of the implications of a proposition gives a limited intelligibility, harmony and coherence to our knowledge, which is sufficient for our practical purposes. From this epistemic point of view, every proposition is a limited 'whole', with limited implicates as its 'components'.

The relation between the antecedent and the consequent is that of 'whole' and its 'parts'. It will not be wrong if we call the facts expressed by a proposition as a 'class' with implications (in the sense of implied facts) as its members. A class may be defined either extensionally or intensionally. In the former we enumerate the members said to comprise the class. But such a definition which does not state any intrinsic relation among the members cannot be called a definition at all. A class is not a mere collection of independent units. It is a unity, an identity-in-difference. The identity of the Universal is present in all the members. It is due to this identity of the universal that we can pass from one member to the other, or from the whole to the part.

The essential characteristic of a class is that its members possess certain properties in common. The facts expressed by a proposition possess, at least, the properties of 'being facts', and of 'being expressed by the same proposition' in common. Taking the facts expressed by the antecedent and the consequent as a class and its members respectively, we can say that the relation between the two is that of 'inclusion', i.e. the antecedent includes the consequents. Thus the relation of implication turns out to be a relation of 'inclusion' and the calculus of propositions a calculus of classes.

But what is meant by the logical necessity of the consequent being implied by the antecedent? This raises the old dispute between empiricism and rationalism. According to empiricism, all knowledge comes from experience and therefore cannot be certain. But this does not explain mathematical or logical knowledge, the certainty of which cannot be denied. Rationalism explains it as a-priori. The a-priori, however, explains the source and not the nature of logically necessary knowledge. Its nature is that its denial is self-contradictory. Consistency demands the assertion of the consequent with the assertion of the antecedent. Now the question is: what is this consistency? It is the consistency of the identity

of the whole being immanent in its parts, or of the class being immanent in its members. Thus logical necessity is the necessity of the law of identity. True logic is the logic of the Absolute.

Hence, we conclude that the meaning of the part is determined by the meaning of the 'Whole' and vice versa; this is true intensional logic. On this basis we can develop extensional logic. If P implies q, then

If P is true, q is true,

If P is false, q may be true or false,

If q is true, P may be true or false,

If q is false, P is false.

"All-and-Some" Statements.

by

PRAVAS JIVAN CHAUDHURY

"Every event is caused" or "Everybody has a mother" is a typical "all-and-some" statement whose nature we wish to investigate here, and, incidentally, we will also answer the question whether such statements really drive a wedge into the analytic/synthetic dichotomy as they are claimed to do in certain quarters.¹ The form of such a statement is, "For all x there exists some y" or synthetically " $(x) (Ey) R (xy)$ ", so that from a particular instance of a universally quantified variable x we can infer a related instance of an existentially quantified variable y. Now we notice that if "Every event is caused" is admitted as an assertorial statement, then there will be no uncaused event left over to falsify it. So the statement will lose empirical meaning and factual truth or falsity. It will then be an analytical statement and a tautology. But the intention of the statement is obviously different. One does not say "Every triangle has three angles" or "Every rose is a flower" unless one intends to illustrate a tautology or to teach the meanings of words, but one who states an "all-and-some" sentence does it in an informative manner. Therefore such a statement is not analytical or tautologous, unless, of course, it is granted that the maker of the statement in question is one who is so naive as to be unaware of the logical consequence of what he says and indulges in empty verbalism while thinking that he is informative. But this does not seem to be the case. Did Kant, who brought out the analytic/synthetic dichotomy so clearly in modern philosophy, speak of the synthetic a priori judgments just because of a logical confusion in his mind? We must try some other suggestion. Is it then that the statement in question is a linguistic

1. See the paper "Between Analytic and Empirical" by J. W. N. Watkins in *Philosophy*, April, 1957. The present endeavour is the result of reading and thinking over the stimulating discussion of Mrs. Watkins. However, it is presented as an independent discussion, because we have approached the problem from a different angle and offered a quite different solution.

prescription in disguise? Does it mean, "Henceforth use the terms 'event' and 'cause' in such a manner that an uncaused event becomes a logical impossibility?" We do this sort of thing in a rhetorical mood; for instance, when one says, "You need not worry, they are only clouds," you reply, "Nonsense, clouds *mean* rain." But the philosopher who says, "Every event is caused" does not seem to be in a rhetorical mood. He seems to be prosaic and literal. So that he cannot also mean by the sentence that most events, not literally *all*, are caused. He is not exaggerating in a hyperbolic mood, as we do when we say "Everybody now-a-days is a thief." To say that he is rhetorical though he does not know it and does not ordinarily appear to us to be so is a gratuitous reflection upon his mental make-up and also on our commonsense. To suggest that he is a wit masquerading as a serious philosopher and that his statement is a disguised conceit would be going too far. Again, he does not seem to take his statement as a resolve to search for some cause of every event and offer it (the statement) as a prescription to others. If he means it to be a regulative principle, why does he not admit that, when people interpret it that way? Kant, for instance, who knew a regulative principle quite well, did not grant that the judgment "Every event is caused" expressed such a principle. Rather he believed that this judgment is entailed by universal scientific judgments like "Smoke is caused by fire", which express specific types of the causal relation and which he took for factual judgments. One may, however, say that even these scientific judgments which are said to entail (weakly, of course) the causal principle are themselves but prescriptive in nature and misconceived by people to be factual laws, so that, "Smoke is caused by fire" means "Expect smoke from fire." But this is a more serious allegation (than the previous one) against Kant and others who believe in the factual, as against the prescriptive, nature of the scientific laws. How is it that they could not see the alleged true nature of the scientific laws? We must not bring such allegations until we have explored every possibility of an interpretation of the "all-and-some" statement that may do better justice to those who state it. To say that they, either knowingly or unknowingly, do not mean what they say is *prima-facie* suspect.

Now the statement in question can be construed neither as a synthetic *aposteriori* nor as an analytic *a priori*, nor as a prescription either for the use of words or for expectation of facts. It claims

to be a synthetic *a priori* judgment. But we do not understand this hybrid. We cannot admit any necessity and universality in the realm of nature, which we study externally and piecemeal through sensible observation. There is no mind and choice in nature to be known by us, and also no necessity and universality with regard to its behaviour. So we have to interpret this alleged knowledge of necessary and universal relations expressed by 'all-and-some' statements in a different manner. We find in nature both caused and uncaused events. From this we derive our meaning of the words denoting them; for we saw above that if there were caused events only, the term "caused events" would lose its empirical sense. Now we seek to explain why events are caused, and implicitly postulate a principle of causality or determinism as a metaphysical or non-instantial hypothesis. We postulate, for instance, the will of God, creator and correlator of events, as did Berkeley. It is a confirmable hypothesis so far as there are events which confirm it. But it is an unfalsifiable hypothesis so far as we may always believe that those events which appear to be so far uncaused only *appear* so and will yield their respective causes up on a more intensive search. It is also an unempirical or metaphysical hypothesis in the sense that its truth or falsity does not depend on observational data, with any set of which it is equally compatible; in other words, it makes no observational difference.

Now we may be very much impressed by the causal hypothesis. And if there is universal determinism, no event can be uncaused. So we shall say, "Every event is caused". Some of us may as well be impressed by the uncaused events and arrive at 'indeterminism' and 'the statement that every event is uncaused, while those that appear to be caused only appear so,—the so-called causes are but concomitants which may not be found later on'. So that these statements are really metaphysical ones in an empirical guise and as such neither analytical nor synthetic, and, certainly, are not prescriptive, either of a linguistic or a pragmatic kind. "Every event is caused" means that an event in its essential nature or real definition is characterised by effecthood. "Everybody has a mother" means that the essence of being a person is characterised by the essence of being mothered. "Every event" or "everybody" does not refer to things distributively or denotatively, but to essences connotatively. So does "a cause" or "a mother". Of course, if we look for the empirical

meaning and truth or falsity of metaphysical entities and their alleged relations, said to be known through intuition and only suggested and confirmed by their empirical illustrations which are neither their source nor court of appeal, we shall be grossly misconceiving their nature and we shall look in vain. If, for instance, an event is claimed to be empirically associated with a cause, then we shall have an empirical analysis of the supposed 'real' definition and, so, shall be dissolving its necessity and universality. If, on the other hand, we conceive the definition as analytic and perform a meaning-analysis, we shall have to deny its factual or ontological reference. These statements, we must remember, are not arrived at as logical conclusions from 'all' observed facts, but as suggested by some facts and then analogically and universally applied to 'all' facts. In other words, some facts are interpreted in the light of a metaphysical hypothesis which they confirm (in the particular way described above), and then all others are seen in the same light. It is like seeing a human face in the clouds first when certain parts of them suggest it and then all other parts seem to confirm it and, again, seeing a locomotive in the same clouds in the same manner. The nature of confirmation of a metaphysical hypothesis is such that the same facts may confirm two hypotheses which contradict each other. So that contradictory hypotheses can very well be raised on the same factual basis and, so, both "Every event is caused" and "No event is caused" can be maintained without implying any empirical difference.

This shows that such judgments are not empirical, and though they appear to be at least confirmed by observational data if not verified, this confirmation does not help its non-empirical character. But one does not easily see this and thinks just the opposite. Again, the fact that they are unfalsifiable also brings out their unempirical nature; but this is also not readily seen, and one imagines unfalsifiability to be a mark of their necessity and universality. Thus the unempirical and postulational character of these judgments is not noticed; and their other two characters, viz. confirmability and unfalsifiability, which ought to expose to a careful thinker this unempirical nature, give rise to an illusion of their being both synthetic and a priori. This procedure of an implicit metaphysical construction being mistaken for and expressed as an empirical fact, and the peculiar kind of confirmation and unfalsifiability of the construction being interpreted as

marks respectively of its factuality and aprioriness, are not unnatural for a thinker; nor do they discredit his intelligence or/and integrity to such an extent as do the other suggestions we noted before. It is really very difficult for us to draw a line between what is our interpretation and what is factually given, and we are continually presenting theories as facts. Goethe said, "The greatest achievement would be to grasp that whatever we call a 'fact' is already 'theory'." So that the interpretation of the "some-and-all" statements offered here seems to harmonise with the minimum of gratuitous hypotheses.

The Method of Spinoza

by

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Spinoza's thoughts on Method are most systematically presented in his "Treatise on the Improvement of the Intellect". In that book, after ascertaining that the 'supreme good' of man can be achieved in the best possible way by what he calls the 'fourth mode of perception' (which roughly corresponds to the 'Intuitive knowledge' of the 'Ethics'), he sets himself to discover the Method of true knowledge.

It may be objected at the very outset that such an enquiry into Method would necessarily lead to an infinite regress. For, to discover the Method a second method will be needed, and to find out this second method, we should require a third one, and so on ad infinitum. But this objection is misconceived. It would be valid only if attainment of knowledge were impossible without a method. Spinoza answers this objection by making use of an analogy. In the same strain, he says, one might argue that it is impossible to make an instrument (say, a hammer). For, the making of an instrument would require some other instrument, this latter still other instruments, and so on indefinitely. But as a matter of fact, there is no such infinite regress because, when we start making tools, we start not with absolute absence of tools but with some natural tools which we are endowed with (viz., hands). Similarly, a search for method would mean endless quest only if it were impossible to know at all without the knowledge of a method. But as we have natural physical equipment with which we manufacture artificial instruments, so we have natural intellectual equipment also. That is, before knowing the method, we already know. We do not have to wait for a method in order to know. We first know, and then, by looking back on our knowledge, we discover the method. An enquiry into method can start only when we are already in possession of some amount of knowledge. In endeavouring to discover the best method, we do not start from a state of absolute ignorance. Knowledge of method is subsequent to, and presupposes, knowledge itself.

This explains why Spinoza says that the Method is 'reflective knowledge' or 'the idea of the idea'. The 'idea of the idea' would be impossible unless there be first the 'idea'. The Method, therefore, is second-order knowledge which reflects on the first-order knowledge.

What Spinoza aims at discovering is not any method, but the best method. Since the Method consists in reflecting on knowledge, he argues, the best method will be that which reflects on the best knowledge of the most satisfactory idea. That is, he holds that that method is best which reflects on the idea of the most perfect Being.

But how do we get the idea of the most perfect Being? Spinoza maintains that everybody possesses this one perfectly satisfactory idea. "This perfect and satisfactory idea is both the ground for all knowledge and the instrument for progress in knowledge". This idea is clear, distinct, self-evident and true. It is on this idea that the best method reflects. "Now, this does not mean that contemplation reveals the distinguishing mark of this idea, and that is used as criterion for testing every other idea. The method simply consists in contemplating the true idea which we already possess, and as it is seen more and more completely, so it is seen to be the ground for every other true idea."

A brief discussion of what Spinoza means by a 'true idea' and 'truth' will not be irrelevant here. A 'true idea' is one that agrees with its object. But 'agreement' does not mean here 'correspondence'. A 'true idea' is not a picture or copy of its object. It is ideally what the object is in actuality. The truth of an idea does not depend on correspondence with its object, though, in a sense, the idea agrees with its object. Every mode of Substance is expressed under different Attributes. That which is expressed as an idea under the Attribute of Thought is expressed as its object under the Attribute of Extension.

The truth of an idea is not known by comparison of the idea with its object. A 'true idea' needs no external sanction. It bears on itself the mark of its truth. Truth reveals itself and falsity just as light reveals itself and darkness. Having switched on a light we do not require another light to see if the illumination is good. Similar is the case with 'true ideas'. Truth is its own sign. One who has a 'true idea' knows at the same time that he has a 'true idea'.

It may be argued that such a conception of a 'true idea' makes the search for method superfluous and useless. For the method is designed to show the way in which true ideas must be sought. But just as the first truth was discovered without the aid of a method, so it might be possible to continue to discover truths without it. That is, since true ideas are self-evident, each of them can be known by its own light. Hence, method will have no function in their discovery. The force of this argument is admitted by Spinoza. But, he says, that this is something that rarely or never happens. We may, therefore, profitably use method "so that what we cannot acquire by luck we can acquire by a deliberate plan."

Method, therefore, is meant to guide and control the intellect in its search for true ideas. Against this, an objection is advanced by Joachim. "If in reflecting", he says, "the knower were to remodel or re-arrange the true ideas on which he reflects, he would be tampering with his knowledge—perverting it into error". To this, it may be said in reply, that method certainly does not remodel the ideas on which it is based. It merely abstracts from them so as to formulate certain rules for the guidance of the Intellect.

Joachim puts forward another formidable objection which aims at showing that method, as conceived by Spinoza, is impossible. Spinoza's own analysis of a true idea, Joachim argues, rules out the possibility of method as 'knowledge of knowledge' or 'idea of idea'. A mode of Substance must maintain its self-sameness in its mutually exclusive but complementary expressions under the different Attributes. "It must be expressed under the attribute of Thought, i.e. as an idea; and it must be expressed also in a disparate medium, i.e. as a mode of Extension or some other attribute. But these conditions are not fulfilled in the 'knowledge of knowledge' which is Method". Spinoza holds that one idea can be an object of another idea in the same sense in which an actual object can be an object of the first idea. This, Joachim points out, is impossible from the very nature of the case; for while the idea and the object are in disparate but complementary media (viz., Thought and Extension), the 'idea of the idea' and 'the idea' are in the same medium (viz., Thought).

If this objection be valid, then it appears that what Spinoza describes as method is inconceivable. And this difficulty cannot be dispelled or overcome, unless the entire theory of 'reflective

knowledge' is reconstructed, so as to be compatible with Spinoza's notion of 'true idea'. Spinoza conceives of the Method as a body of knowledge which reflects on another body of primary unreflective knowledge. In this, he is wrong. It is not that in reflective knowledge "one body of knowledge contemplates another, but that knowledge reflects upon itself, i.e. is raised to the highest level of its own development—a level at which it is critical and conscious of itself. For method is neither before nor after knowledge, but inseparable from it.

It is the task of the Method to discover in accordance with the standard of a given true idea other true ideas. But not only that. The method also demands, so says Spinoza, that the knowledge thus gained should be presented in proper deductive order. If that be so, the geometrical order in which Spinoza's mature thoughts are presented is not only an order of presentation (as Leon Roth holds), but also a method of proof.

The reason why Spinoza chooses the Geometrical form is not far to seek. Spinoza was much interested in the science of his time and was more or less influenced by it. Seventeenth-century science stressed the importance of Mathematics and preferred a priori reasoning to the method of empirical observation. The reasoned accuracy of Mathematics and the certainty of its conclusions caused the belief that it provided the ideal method. If anything is mathematically proved, it was believed, it cannot but command general acceptance. Hence, it is little wonder that Spinoza, following Descartes, adopts the method of geometrical demonstration for proving philosophical truths.

Almost every modern critic or commentator of Spinoza has pointed out that the method of Geometry is inadequate for the treatment of philosophical truth. This cannot, of course, be shown by exhibiting that Spinoza has failed to deduce his conclusions from his premises. That can, at best, prove the failure of Spinoza in strictly adhering to the Method, but not failure of the Method itself. It is not difficult to find out lapses in Spinoza's deductions. It is easy to show that everything that he seeks to deduce from the definition of Substance does not actually follow from the definition. For, how does it follow from the nature of Substance that it has attributes, or that it is active and is the cause of everything?

But the critics, besides showing the faulty nature of his deductions, argue further that this is so, because philosophy, by its very

nature, is not amenable to geometrical treatment. Thus Caird says that the Geometrical Method, or, for that matter, the method of any science whatsoever, is inappropriate for philosophy. The sciences are departmental, abstract and make many presuppositions. Philosophy is concerned with the Real, with the Whole, and tries, as far as possible, to dispense with presuppositions altogether. Their difference being so fundamental, it would be a wonder if a method which deals with the categories of space, number and quantity were equally applicable to a sphere which is also concerned with matters of spirit.

Spinoza is often greater than his method. The method that he consciously adopts, he often violates. His speculative insight often rises above the restraints of his method. It seems that many discrepancies in his theory are due to the inadequacy of his method to his thought. But though the form has not been able to completely determine his thoughts, yet his thoughts could not altogether withstand its influence. For example, his views on such matters as human freedom, relation between the finite and the Infinite, can be attributed to the influence of his method. The Infinite is to the finite what space is to its determinations. "In a system in which all things follow from the first principle with the same necessity as the properties of a geometrical figure from its definition, or a logical conclusion from its premises, individual freedom is an impossible conception".

But, if the geometrical method be incommensurate with his thoughts, can we not pertinently ask whether true philosophic knowledge is capable of being formulated in geometrical or in any other reasoned mode of discourse? Spinoza admits that the best mode of knowledge is intuitive, but he seems to think that such knowledge can be expressed in a series of arguments. But is he right in so thinking?

An answer to this question is not possible unless we first discuss the nature of Intuitive knowledge. Now, Intuitive knowledge "proceeds from an adequate idea of a certain attribute of God to the adequate knowledge of the nature of things". It consists in a direct vision which sees all things in their interconnections and in their relation to God. It appears that such knowledge in its completeness can belong to God only and not to any finite human being. But Spinoza claims to have himself participated in such knowledge at times. We need not disbelieve Spinoza, though we may feel that the attainment of such intuition by finite indi-

viduals surpasses our comprehension. It is also difficult to see how such immediate insight can be translated into words. And if we try to think that infinite number of words would be required to trace a finite mode to the Infinite Substance, we are all the more baffled. Intuitive knowledge, says Spinoza, is of the concrete and the individual, and this concrete apprehension it is impossible for scientific knowledge to give. So, it may be said that, Spinoza virtually admits that Intuitive knowledge cannot be reduced to rational scientific formulation, though this is what he tries to do in his works.

We may conclude with the remark of R. L. Saw: "The source of the defect in Spinoza's account of knowledge is that he wants to combine two incompatible things. He wants to combine the peculiar certainty of knowledge by acquaintance, with the peculiar certainty of mathematical knowledge".

The Historical Background of Kumārajīva and His Influence on Chinese Buddhism

by

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For the study of Buddhist Philosophy, the most important documents are preserved in the Chinese Tripiṭaka and in the Tibetan Tripiṭaka. Specially the statement holds good in case we want to examine the Philosophy of Nāgārjuna, one of the most brilliant philosophers of India. Twenty-three works of Nāgārjuna consisting of 180 volumes have been preserved for the posterity in the Chinese Tripiṭaka and 125 in the Tibetan Tripiṭaka. Consequently the name of Nāgārjuna is not so well known, and he has been deprived of the honour he deserves.

One of the most important works by Nāgārjuna was the text of Mahāprajñāpāramitā-śāstra translated in 100 volumes in Chinese. The Sanskrit text is now lost and it was not translated into Tibetan. Besides containing the most important materials on the Philosophy of Nāgārjuna, the work may be considered as one of the Encyclopaedias of Mahāyāna Buddhism in India.

The full picture of Nāgārjuna's philosophy we may get from the text of Mādhyamika-śāstra and Prajñāpāramitā-śāstra; while the former acquaints us with Nāgārjuna's method of negative dialectic and Negation, the latter throws light on the Affirmative aspects of Nāgārjuna's philosophy. These two methods of interpretation of the Prajñāpāramitā greatly stimulated the Buddhist movement in China; and Nāgārjuna came to be known as the Founder of Eight Sects in China.

The works of Nāgārjuna were translated into Chinese and Tibetan through the conventional translation method. Among these many translators working in China and Tibet, I would like to pick up Kumārajīva, the greatest translator of central Asia, and say a few words about him, as the translator of Mahāprajñāpāramitā-śāstra.

As we know, Sanskrit (the language used in the original text of Mahāprajñāpāramitā) is an inflexional language, but Chinese (the language into which it was translated) belongs to the isolated

language group. The translator, on the other hand, belonged to the area of agglutinative language. The differences between such different groups of languages already attracted the notice of some distinguished Chinese scholars such as T'ao-ân (314-385) and others. But they never thought it necessary to investigate the educational background of the translators or the particular school of philosophy to which they belonged. In this paper I would like to examine the influence of these facts on Kumārajīva and his translation of Nāgārjuna's philosophy into Chinese.

The 4th century A.D. marks the rise of the brilliant Gupta age in India. And in this period Kumārajīva came to India from Central Asia. He was born in Kucha of Central Asia, and he breathed his last in China in the beginning of the 5th century A.D. According to the divisions of "*the Biography of an Eminent Monk*" by Hwui-ciāo, 519 A.D., the chief activities of Kumārajīva have been dealt with in a section of the translation of Buddhist texts. But however important the contribution of Kumārajīva in the field of Chinese translation may appear, it forms only a part of his diverse lifelong activities.

As for the biography of Kumārajīva we have in the Chinese documents 3 types of biography, based on 2 kinds of material. After a careful investigation of these materials, I think that he was born in Kucha in 350 A.D. and died in China in 409 A.D. I have refuted elsewhere* the authority of the "*Message of Condolence*" on the basis of which it has been generally held that Kumārajīva expired at the age of 70.

He studied the Hīnayāna texts under the guidance of Bandhudatta for about 3 years. When he was 12 years old he started on his way back to Kucha; he broke his journey at several places where he stayed for the sake of learning Buddhism. He came into touch with Mahāyāna Buddhism at Kashgar. After he came back to Kucha, he received the upasāṃpadā of Buddhism in the school of Sarvāstivāda-vinaya (Daśādhyāya-vinaya). One day he visited the new temple belonging to the King. There he found the Pañcaviṃśati-sahasrikā-prajñāpāramitā. He was fascinated by this doctrine, and stayed there and studied it. But the Pañcaviṃśati-sahasrikā-prajñāpāramitā had already come to China by the way of the southern road in Central Asia. It had also been already translated into Chinese by Mokṣala, the Sramaṇa of Khotan, in

* A paper to be published by Visvabharati.

291 A.D., and was joined to the doctrine of Daśasahasrikā-prajñāpāramitā, which was translated by Lokarakṣa, the Sramaṇa of Yueh-C', in 179 A.D. Being influenced by this new doctrine, he came to the following conclusion:

The way of Mahāpuruṣa is for others and not for me. A man forgets his own body. If I can work for the propagation of the teachings of Buddhism, and for the enlightenment of the ignorant man, then I will not grieve, even if my own body gets the suffering of being put in the baking oven. (Taisho Tripiṭaka, No. 2059, vol. 50, p. 331a).

He was captured by Lü-kwan in 384 or 385 A.D. He could not any longer observe fully the Buddhist commandments (upa-sāṃpadā). Perhaps this occurred in his 35th year, as predicted before by an old Arhat. After his stay on the western border of China for several years, he came at last to China in 401 A.D. From this time he started his new life as a translator. We have enough materials for the study of his life in China.

In Chu-sân-tsân-ci-tsi, a collection of the records of translations of the Tripiṭaka, 42 letters and Kumārajīva's answers to them, throwing light on various problems, have been preserved. But these letters are rather wrongly distributed, in the following sections — dharmatā, buddhatā, prajñāpāramitā, dharmakāya, vimukti, deśanā, śīla, bhāvanā, rūpacitta. His 42 answers to the letters are scattered under the above sections and have no connection with the other 7 sections. These letters only reveal the interest, the Chinese had, in the work of Kumārajīva.

The following lines occur in both the biographies of Kumārajīva:

"Usually he used to lament and say: 'If I take to the writing of the Mahāyāna-Abhidharma, it may surpass the works of Katyāyāniputra.'"

He used here the new term Mahāyāna-Abhidharma, by which he meant the Abhidharma-Studies in Mahāyāna-Buddhism. Katyāyāniputra, mentioned here, is the author of Jñānaprasthāna. Kumārajīva mentioned very often the name of Katyāyāniputra.

When Kumārajīva learnt Mahāyāna Buddhism, he received the doctrine that all of the five skandhas, the eighteen dhātus and the twelve āyatanas were śūnyatā and were alakṣanas. But he failed to understand this doctrine, and still believed in the reality of the Indriyas. This point must be taken into account while analysing

the nature of his training and his ideas which exerted a great influence on the history of Abhidharma study in China. Kumārajīva's belief in the reality of Indriyas and their objects would be found to be similar to the Vāibhaṣika ideas as propounded, for example, by Vasumitra and quoted in the Mahāvāibhaṣa and Yaśomitra's Abhidharmakośavyākhyā.

The following story about Kumārajīva would also suggest that his knowledge of Buddhism was rather defective :

"Hui-Yüan asked him about the state of the 34 minds at the time of the extinction of the Dharmakāya. But in his reply, he failed to find a suitable answer to this problem and instead he quoted the mahāyāna-sūtra, and said that the 34 minds and 9 ānantaryamārga and 9 vimuktimārgas do not come from the Buddhadeśana, because in the Agamas and Vinayas and Māhāyana-sūtra, we do not meet with this theory." (Taisho, No. 1856, vol. 45, p. 131a).

It is a well-known fact, however, that the problem of the 34 minds is discussed in the school of Sarvāstivāda. So his misleading answer only points to his ignorance of important Buddhist doctrines.

In another report about Kumārajīva it is said that in reply to a question put by Hui-Yüan, he said that the "catuḥ lakṣaṇa" in the doctrine of saṃskāra has its origin in the idea of Katyāyāṇi-putra, not in Buddhadeśana. (Taisho, No. 1856, vol. 45, p. 135b).

But this also is not correct. For, the theory of "catuḥ lakṣaṇa" can be traced in the Aṅguttara-āgama, vol. 12. This text was translated into Chinese in 384 A.D. So it may be concluded that eminent Chinese scholars already knew about the passages in the Aṅguttara-āgama to Jñānaprasthāna dealing with the 34 minds. But as Kumārajīva was not aware of it, he could not find any doctrinal relation existing between these two texts.

Again, in a passage of the biography of Buddhayaśas, it has been stated as follows: (Taisho, No. 2059, vol. 50 p. 334b).

Kumārajīva wanted to translate this Daśabhūmika sūtra, but he spent more than one month in idle pondering without coming to any decision. However, afterwards, with the help of Yaśas he finished the translation of the text.

This text also did not belong to Kumārajīva's area, it belonged to the central Asian southern route area. So Kumārajīva, it may be guessed, could not understand the text written in Sanskrit.

As for the Mahāprajñāpāramitā-sāstra, it was translated by Kumārajīva during 402-405 A.D. Upto the 34th volume the original translation has been retained, though the rest of the translation was modified and extremely simplified afterwards. In this text, we meet with the important interpretation of the doctrine of pratītya-samutpāda. The relation existing between things was that of anyonyāpekṣā, there were no beings originating due to svabhāva. Nāgārjuna spread this doctrine. According to him, all beings were śūnyatā. The Buddha or the Nirvāṇa, the ideal of the Buddhist, was also śūnyatā. But his interpretation of śūnyatā was the result of his attempt to support the doctrine of tathatā, which was also called dharmatā. Nāgārjuna held that from the standpoint of Saṃvṛitti, every thing enters into śūnyatā. But at the same time, from the standpoint of paramārtha, it becomes tathatā, which cannot be described either as being or as non-being; it is avyākhyā.

These ideas influenced the sect of T'ien-t'ai and Hua-yen. But Kumārajīva himself perhaps was not aware of the deep import of this doctrine. The chief implications of this doctrine were brought out by a group of eminent monks of that time. The indriya-darśana-vāda of Kumārajīva is a realistic doctrine opposed to the doctrine of śūnyatā. So naturally it follows that Kumārajīva with his realistic bias lacked the necessary attitude for the proper comprehension of the doctrine of śūnyatā as propounded in the Prajñāpāramitā. Therefore, it was only natural that he could not faithfully translate the Prajñāpāramitā which teaches śūnyatā.

Concept of Lila in Tagore's Aesthetics Examined

by

DR. S. K. NANDI

Having a different intellectual and cultural context from that of Kant and Schiller, Avanindranath Tagore, the master of the present generation of Indian artists, formulated the principle of Lila as contradistinguished from the concept of Khéla on the one hand and work on the other. In attempting a proper appraisal of the genesis of art, aestheticians have delved deeper into human psyche, and some are of opinion that art has its origin in the region of the 'Silent mind' as opposed to the 'verbal mind'. There are others who think that the urge for artistic creation is conscious, and as such art is brought forth as a result of the artists' conscious effort. If we consider art as a conscious creation or as some form of active creation, then certainly the question remains to be answered:¹ What urged this creation? The motive of the artist remains to be explained. If the artist has any motive extraneous to the nature of art, then art suffers in its virtue as art. Masters like Tolstoy who believed in the missionary activities of 'People's art' are no more heard with interest now-a-days. So a principle of explanation had to be found out quite consistent with the autonomous nature of art. The Play theory was formulated. It may be noted that there were objections raised against the identification of art and play² or against the consideration of art as play. But play looked upon as the mysterious activity which occupies the working and waking hours of children has great resemblance to art, considered not as magic art nor as amusement art. Children play and this play is mysterious. So the artists also play with their different art-forms with a purpose,³ undefined and

1. A. E. Housman and others considered art to be some form of passive activity. (See Housman's book 'The Name and Nature of Poetry'). This characterisation of art adroitly sidetracks the issue of the artist's real motivation in his creation.

2. See Collingwood's 'The Principles of Art', p. 80.

3. Dr. Margaret Lowenfeld's noted book 'Play in Childhood' has discovered strange facts about child's play. Her discoveries go to show the identity of art and play.

indefinable. Kant's paradoxical characterisation of this purpose is 'purposiveness without a purpose'. Freedom from practical ends binds together art and play. Their common tendency to simulation, or in the very largest sense, the ideal treatment of reality, links them together. The play impulse, writes Bosanquet, is in short only aesthetic where its primarily negative⁴ freedom is charged with a content which demands imaginative expression, and any impulse which takes such a form is aesthetic.

Avanindranath considered art to be play (Lilā), and he distinguished this Lilā from Sport (Khéla). According to Tagore, Khéla or sport is not the true characterisation of art, as men take to different types of sport at different age-levels. Sport has a reference to age-group, and a fondness for a particular⁵ sport at an earlier age is overcome at a later age. Thus Self-transcendence is the character of sport, whereas Lilā or play in Tagore's view has a stability through changes and a universal appeal. Art as sport (Khéla) has been decried by pedants. Even there were religious sanctions against painting, as it was considered to be some form of sport prompted by a love for frolic.⁶ This crusade against fine arts has been a recurring feature in human history. How then art survives the onslaught of all these opposing forces? In Tagore's opinion, this crusade against art is a crusade against art as sport (Khéla), and not against art as play (Lilā). When art is looked upon as a favourite pursuit to fill up one's leisure, it is not the Lilā or play in Tagore's sense; it is mere Khéla or sport, as it implies no inner necessity, the necessity that makes the artist restless and without peace. The classic example of this restlessness may be found in Valmiki, the epic poet, when he was blessed with the maiden rhyme. Pursuit of art as sport might be a temporary phase in the individual life, but art as play-impulse is laid deep in our nature and its roots have struck into the very being of our existence. That phenomenon explains the survival of art through the ages. Appeal of art is universal and this universality in art also distinguishes this play-form from other forms of sport. The spirit that prompts human hobbies is absent in

4. Bosanquet's *History of Aesthetics*, p. 296.

5. See Tagore's *Bagiswari Lectures*, p. 258.

6. Tagore refers to Islamic scriptures which uphold such sanctions.

To quote Tagore: "There was a time when Islam laid strict injunction on portrait making". (*Lectures*, p. 258). He also refers to Hindu scriptures for similar sanction.

Lilā,⁷ whereas it is the guiding force in all forms of Khéla. Lilā is characterised by internal necessity, whereas Khéla may be prompted by a necessity external to it.

Tagore's 'Lilā' is not the spontaneous outburst or overflow of excessive energy, as has been sought to be proved by Schiller and Herbert Spencer in their play theories. This Lilā of Avanindranath⁸ is all-consuming.⁹ It bears within itself the eternal dissatisfaction of the artist with the existing limited forms. He seeks to express the eternal all-abiding forms of Beauty. Any recognition of his failure leads him from old forms to newer forms of expression. He is always experimenting with newer techniques of externalisation of his subjective feelings. This failure is accompanied by a feeling of pain, the pain that paradoxically sustains the artist through all his failures, past and present. This pain characterises all great works of art. Man's intense thirst for beauty aches and it inspires his creation.¹⁰ The primitive men, Tagore points out, in the Aurignacian age drew human faces in order to satisfy this urge for creation. They were specimens of crude drawing. This primitive art-tradition came down to us through the Solutrian and Magdalenian ages and underwent radical changes in course of human history. This evolution in art was mainly due to conscious human enterprise.¹¹

Tagore admits an element of conscious effort as a logical corollary to his theory of art as play. Art is active: he calls it Sādhana. It ceaselessly aims at creating beautiful forms wherein he wants to instal his response to the call of the Real.¹² So Tagore's Lilā is characterised by some inner necessity which makes the production of artistic forms inevitable.

This inner necessity in Lilā is not contrary to the artist's freedom. If self-determination is considered compatible with freedom then certainly¹³ Tagore is not inconsistent in his play theory by the postulation of this internal necessity. His theory

7. See *Bagiswari Lectures*, p. 259.

8. See Bosanquet's *History of Aesthetics*, p. 294.

9. Cf. H. Spencer, *Psychology*, ii. 627. (Quoted in Bosanquet's *History of aesthetics*).

10. See *Bagiswari Lectures*, p. 259.

11. See Spearing's 'The Childhood of Art', p. 76.

12. See *Bagiswari Lectures*, p. 264.

13. See Tagore's *Ghorā*, pp. 1-2.

of *Lilā* makes artistic creation an intensely conscious activity. We must bear in mind that Tagore's play theory stood for¹⁴ proper aesthetic detachment without which no artistic creation was possible. Tagore distinguished between interested and disinterested¹⁵ outlooks on life, and in his opinion, the artist's outlook was disinterested or detached. This disinterestedness is a handmaid of Tagore's *Lilā* theory. *Lilā* is unmotivated. The instinct of possession and other self-regarding instincts are totally dormant when the artist creates. Self-interestedness is contrary to the nature of art as a free activity. Art, according to Tagore, is a conscious activity characterised by supreme detachment. This detachment and absence of self-interest in art on the part of the artist do not save him from a gripping pain of frustration and failure when his artistic forms look inadequate to the prototype in his imagination. Curiously enough, this sense of intense pain due to his failure sustains him and inspires him to take to fresh experiments. Thus art evolves new forms and all these transitions from one form to another are fraught with painful tales of the agonised mind of a Picasso or an Avanindranath. Rabindranath, the illustrious uncle of the master artist gave mighty support to Avanindranath's theory of 'artistic pain' when he wrote :

"This is no mere play,
This is the intense pain
When my heart burns."

The artist's eternal thirst for beauty¹⁶ makes him unhappy.

The Ideal treatment of reality by the artist helps this identification of art and play. Tagore considered the content of art to be the result of much selection and rejection from the storehouse of nature by the artist.¹⁷ Art does not present nature in all her ruggedness and grandeur but represents nature in the Aristotelian sense.

Artists present an 'ennobled nature', a 'real idealised'. Freedom that is the essence of play cannot live stifled and oppressed. If art were mere copy of nature, servility to crass matter would have taken away the last vestige of freedom from the domain of art.

14. See Tagore's lecture entitled 'Dr̥ṣṭi O Sr̥ṣṭi' (Bagiswari Lectures, pp. 27-52).

15. See Bagiswari Lectures, p. 45.

16. Quoted in Avanindranath Tagore's Bagiswari Lectures, p. 259.

17. See Bagiswari Lectures, pp. 259-60.

That is why Tagore was emphatic in his denial of copy theory in art.¹⁸ The artist is like an adept gardener whose skill rests on selecting the right type of flowers for the bouquet and for the garland. The artist is selective and interpretative. He creates 'artistic reality' and this creation entails much of intense work in proper selection. Beauty is the realm of play and appearance. It is the unification of the spiritual and the sensuous. The 'sensuous' comes from nature whereas the 'Spiritual' is the significant form given by the artist to the selected and embellished nature. Tagore's unqualified acceptance of the '*Niyati krita niyamarahita*' dictum finds in him the unification of Kantian necessity and freedom.¹⁹ Tagore's *Lilā* theory is a guarantee of this freedom so essential for art.²⁰ Schiller, another great exponent of play theory, writes in his 'Letters upon the Aesthetical Education of man' guaranteeing this freedom of art and of the artist; 'The idea of an instructive fine art or improving art is no less contradictory, for nothing agrees less with the idea of the beautiful than to give a determinate tendency to the mind.'²¹ This determinate tendency of mind is alien to the autonomy of art.²² That is why Tagore spoke against mimicry in art repeatedly. Even set rules for the artist did not find favour with Tagore. He said that set rules were not for the artist but for the art-students in the classrooms. Tagore believed in art for art's sake theory, and it was his considered opinion that art should not entertain such questions as to whether art should subserve national, religious or social interests, whether it should hold up a mirror to nature or should take to some other similar mission. For they were redundant for art as an autonomous free activity or *Lilā*.²³

18. See Bhārat Śilpér Ṣaḍanga, p. 54.

19. See Bagiswari Lectures, p. 77.

20. See Bagiswari Lectures, p. 80.

21. See I. Knox's 'The Aesthetic Theories of Kant, Hegel and Schopenhauer', p. 73.

22. See p. 82.

23. See Bhārat Śilpé Mūrti, p. 1-3 and Bagiswari lectures, p. 352.

Review

Logic without Metaphysics and other essays in the Philosophy of Science. By Ernest Nagel. The Free Press, Glencoe, Illinois. 434 pages. Price \$6.

This book is a collection of Professor Ernest Nagel's essays—the result of an effort to bring them under hard cover—which had been published previously in various journals and are reproduced here with minor editorial changes. The book is arranged in two parts, Part I containing ten essays and Part II, twenty essays.

Professor Nagel is one of the really outstanding and truly original logicians of our time; he is also a philosopher of science of considerable eminence. Moreover, to use the words of *The Scientific American*, he is "one of the clearest of contemporary thinkers". This reviewer can heartily endorse the glowing tributes paid by many thinkers to Professor Nagel's greatness as a philosopher, having had the privilege of being one of his students for several years.

This present volume is the successor to *Sovereign Reason* and other essays in the Philosophy of Science. In the case of both the volumes, the author has not restricted himself to the philosophy of science but has gone well beyond it, to the consideration of general epistemology. They are works on epistemology in which the approach is that of the philosopher of science and that of the logician. Neither philosophy of science nor logic is for Professor Nagel a narrow specialized study. Each of them stands for something vastly more than the restricted realm to which it is usually confined, for each comprehends the entire gamut of human experience. He would contend that "the boundaries of the Philosophy of Science are in fact the boundaries of Philosophy itself" (*Sovereign Reason*, p. 298). Likewise he wants Logic to be understood in a broad sense; it will then have "no precise boundaries" and "its scope" will be "limited only by the reaches of the human intellect". (*Logic Without Metaphysics*, p. ix).

The thirty essays here included are illustrations of Logic as well as of the Philosophy of Science in their broad sense. These

essays are addressed to various and sometimes mutually opposed intellectual positions, by way of critically examining them; yet they exhibit an unmistakable unity of philosophical outlook and consistency of approach. They illustrate what the author advances as "a sound method of analysis", "even if"—he adds apologetically—"only partially and imperfectly". (p. x). The need to elucidate what Logic is is primary even as a propaedeutic to the correct approach to the Philosophy of Science. Now the word 'logic' has two senses. One of these is the established one commonly identified by the qualification 'formal' or 'pure', "according to which the sole business of the logician is to formulate rules of valid deduction and to codify patterns of necessary implications between statements". (p. ix) The other is the more inclusive and vaguer sense, in terms of which "the task of logic is to make explicit the structures of methods and assumptions employed in the search for reliable knowledge in all fields of inquiry" (p. ix); as such logic points to the principles to be employed in responsibly assessing all claims to knowledge.

Now every philosophy will require a key word with which to open it, and the key word for Professor Nagel's philosophy is "operationalism". Operationalism is a specialized version of functionalism, which as an epistemological approach assumes its place in that general philosophy which is very much in vogue in America, called naturalism. But of course there are schools of naturalism that do not favour an operationalist epistemology such as is presented by Professor Nagel, because over and above its inclusion in the family of naturalism it is also distinctly affiliated with that species of philosophy known as logical empiricism as well as with other schools of the analysts. Now, as our author is one who, unlike most other naturalists and like all analysts, begins his philosophical inquiry from the standpoint of logic—as is declared in advance by the title of the book itself—it behoves us to understand what he is trying to do with regard to the fundamental problems in that field, beginning with the restricted field of formal logic and moving over to logic in the more comprehensive sense.

The first thing for the reader to understand is the critique of the rationalist and the empiricist views of logic originating from Aristotle and John Stuart Mill respectively. These two groups of views, in the course of development, have stood for conflicting positions. In terms of the first, the laws of logic—and also those of pure mathematics—are a priori truths "expressing the struc-

tural invariants of all possible being and a fortiori of the actual world". In terms of the second, the propositions of logic and mathematics are "simply established generalizations from experience". The author criticizes both these traditions. But he also criticizes with equal force the new doctrines put forward by some of the empiricists, mainly of Europe and England, the result of whose procedures is to obliterate even the distinction between the a-priori and the empiricist (meaning older empiricist) standpoints, and consequently also the distinction between the allegedly necessary "truths of reason" and the contingent "truths of fact". But the outcome of the elimination of these distinctions, quite contrary to expectations, is a fatal compromise of the very "professed empiricism about matters of fact". Professor Nagel contends that this compromise has been necessitated "largely because the operative role of logical and mathematical propositions in inquiry and in discourse is neglected in the discussion", a sin of which others than logical empiricists are also guilty. (p. xiii) Accordingly he tries to remedy this defect in the advanced logic of our day as represented by schools like that of the conventionalists, who look to Poincaré (though not doing full justice to him) and, that of the Cambridge analysts, who along with the diaspora of the Wiener Kreis, have chosen to follow an extreme path and to perish in the arid sands of their own prolific verbiage on how to use language. Three essays in particular, namely, "Symbolism and Science", "Verifiability, Truth, and Verification" and "Analytic Philosophy in Europe" are directed against these schools. The differences between a-priorism and empiricism are not to be got rid of by the insertion of some species of terminism. There are important truths involved in the positions of the a-priorists and the older empiricists; and also both these need to be criticised and amended. He is particularly opposed to a-priorism taking the high road to metaphysics or ontology, and is equally opposed to basing laws of logic on mere empirical generalizations. Three essays, namely, "Notes Towards a Naturalistic Conception of Logic", "Logic Without Ontology" and "In Defence of Logic Without Metaphysics", deal with this group of problems.

II

Professor Nagel believes that "the propositions of logic and mathematics are a priori and necessary" (p. xiii), "since they exercise exclusive authority in any system of discourse for which they are the principles of organization and transformation". At

the same time "their effectiveness and significance, as determined by their identifiable operative roles in inquiry and argument, do not entail any dubious 'ontology'", he contends. (pp. xiii-xiv) It is only too easy to conclude, as many do, that if the ideals that the laws of logic formulate are reasonable and are not arbitrary norms, there must be an objective ground—a "structural invariant"—which lends them authority. (p. 74). The author in this connection is seen embarking on an elaborate critique of a-priorism, beginning with Aristotle, in order to distinguish between what is acceptable and what is not acceptable in it. Aristotle of course believed that certain of the axioms of logic "hold good for everything that is", and that therefore they belonged to the science of being *qua* being. One such principle is that "the same attribute cannot at the same time belong and not belong to the same subject in the same respect". The author defends this principle by pointing to the qualification "in the same respect", among other things. In short, this is to be understood in terms of "its function as a norm or regulative principle for introducing distinctions and for instituting appropriate linguistic usage" (p. 60). But he points out that Aristotle himself interpreted this principle as an ontological truth; that is where he went wrong. For, to maintain that the principle is descriptive of the structure of antecedently determinate "facts" or "attributes" is to convert the outcome of employing the principle into a condition of its employment" (p. 60)

It is pointed out that old ontological interpretation of logical principles has reappeared in new forms, for instance the one that advocates that logic is "the science of all possible worlds", a view also entertained by Leibniz. A variant of this view says: "Mathematics takes us into the region of absolute necessity, to which not only this actual world but every possible world must conform". Another version of it states that logic is the most general of possible sciences, for "Rules of logic are the rules of operation or transformation according to which all possible objects, physical, psychological, neutral, or complexes can be combined. Thus logic is the exploration of the field of most general abstract possibility". Thus it turns out that logical principles are treated as "principles of being" as well as, as "principles of inference". Criticizing this position, Professor Nagel points out that "The crux of the matter lies in ascertaining whether 'possible worlds' can be specified without using the principles of logic as the *exclusive* means of specification". (p. 61) In that case, he rightly contends,

what more is achieved than asserting that whatever is specified in terms of conformity to the rules of logic conforms to the rules of logic—a mere tautological statement? This we think is a very important point, which is all too often missed by logico-metaphysicians.

Thus the author supports the *a priori*, without metaphysics. The three essays, namely, "Notes towards a Naturalist conception of Logic", "Logic Without Ontology", and "In Defence of Logic Without Metaphysics" are particularly noteworthy. Now he would also support the empirical approach to logic, without its psychologism. 'Experience' of course is the key word of empiricism, but what is experience? Does experience consist in the accompanying psychological characteristics or in the pervasive traits of the subject-matter encountered in experience? That is the crucial question. Empiricists as a rule regard the laws of logic as generalizations from experience. John Stuart Mill founded a kind of psychological atomism and sensationalism and maintained that logical principles are "laws of thought" and that they are inductive truths. While Mill's psychological approach is rejected, what is held to be of value in his position by modern empiricists is the assertion that "the validity of a type of inference sanctioned by logic can be established only by presenting empirical evidence to show that an inference of that form always leads from materially true premises to materially true conclusions" (p. 66) In thus interpreting logical principles as empirical hypotheses, modern logical empiricists offer "a justification for logic in terms of the procedures and standards of adequacy employed in the most advanced natural sciences". (p. 67) With regard to Mill's psychologism, the author writes: "Surely the actual occurrence of beliefs in logically incompatible propositions makes nonsense of the claim that the principle of non-contradiction expresses a universal fact of psychology. Moreover if logical principles were true descriptions of anthropological behaviour, they would be contingent truths, refutable on evidence drawn from the observation of human behaviour; but in that case the necessity which is so generally attributed to logical principles, however much this may be disguised by calling their contradictories "unbelievable" (as Mill says), would be left unexplained", (p. 66) Parenthetically it may be mentioned that this psychological manner of looking at the foundations of logic as operative in human thinking is also characteristic of an entirely different and, so to say, opposite philosophic tradition, namely the Cartesian. This is one of the problems dealt with by

the author in his essay, "Truth and Knowledge of Truth", where he disposes of Professor Ducasse's view that "The truth of a proposition consists in *ultimate* undisbelievability of the proposition; and falsity in ultimate unbelievability in it". (p. 157; See Phenomenological Research, Vol. 2, p. 336). Surely the psychologism of the Cartesians, however, is a stronger one, deeply rooted in a-priorism and metaphysics. But Mill's is a weak one. Nevertheless both are worthy of rejection. The necessity attached to Mill's "laws of thought" is itself a derivative from anthropological observation and thus its tenuous nature is all too evident. So Professor Nagel asks: "Is it not significant that whenever consequences derived from premises believed to be true are in disagreement with the facts of experimental observation, it is not the logical principles in accordance with which those consequences were drawn that are rejected as experimentally unwarranted?" (p. 67) Also: "Indeed it is not apparent how the suggested method of establishing the validity of logical principles could operate in any typical inquiry. For the truth of most premises employed in the sciences cannot be established except on the basis of an investigation of the consequences which are drawn from them—drawn in accordance with and with the help of logical principles". (pp. 67-68)

Now these respective excesses of a-priorism and empiricism have passed on to modern logic and philosophy of science in different garbs, especially in regard to the problems of the relation of language to reality, verification, truth, and meaning. Over against these modern positions the author is at pains to demonstrate that logical principles have a regulative and prescriptive role in the use of language. Language neither gives an exact and detailed picture of reality nor does it consist in discourse that is unrestricted by specific subject-matters. According to a prevailing view, which in a way is a continuation of an old and influential tradition, which has found powerful modern advocates in Russell and Wittgenstein, language is treated as a mirror of "nature", "in the sense that any statement about a fact must have a "structure" which is in some fashion analogous to the structure of the fact it formulates". (p. 126) This conception, Professor Nagel argues, must be "judged as an oversimplified account of the relation between language and its subject-matter". (p. 92) Also: "Language is the instrument for expressing the structures of things and processes; but not all of its parts are symbols for elements of those things and processes, and not all of its parts can be understood without reference to the

norms and objectives which control the construction and use of that instrument". (p. 92) This theme is taken up and elaborated in the essay "Symbolism and Science", elucidating many problems arising out of the notion of science as a system of symbols. The expertness and originality with which he deals with this and similar problems and his vast erudition and profound grasp in matters scientific do undoubtedly elicit the reader's admiration. The idea that there is, on the one hand, a one-to-one correspondence between the constituents in a theory and the constituents in the subject-matter, which the theory is about, and, on the other hand, a "formal or abstract identity between the syntactical organization of the symbols and the interrelations in the corresponding constituents in the subject-matter" (p. 129), is dismissed. He contends, with the help of a number of forceful arguments, that "symbolic systems in general, and the theories of modern science in particular, almost invariably contain symbolic constituents which have no representative or descriptive function, but are simply instrumental to an efficient transformation of symbols and are convenient means for making calculations". (p. 130). Symbols of language are also not designed to represent atomic metaphysical simples, as modern survivals of Leibnianism make out (p. 149). All these problems are very effectively dealt with in the essay, "Verifiability, Truth and Verification".

Leading empiricists also draw some criticism from Professor Nagel: this because they seem to be always engaged in "analyzing", but paying scant heed to the empirical subject-matter itself, which means that they stand in danger of analyzing in a vacuum. He does indeed agree that "the task of philosophy can be defined as the analysis of categories". "But", he would add "this definition can be adopted only with the qualification that the meaning of a category must be clarified by reference to linguistic usage in connection with determinate and identifiable subject-matter, and that the validity of a categorical analysis is at all times an empirical matter". (p. 41). By empirical he means contextual. His interest in empiricism is not for the purpose of obtaining "laws of logic" by generalizing from specific observations, which are then applied uniformly, regardless of contexts, but for the purpose of obtaining subject-matter for analysis. He writes: "a clear recognition that all analysis and all judgments of importance are contextual, that the distinctions and traits are distinctions and traits within denotatively fixed subject-matter, that the extrapolations of one analysis to other situations must be attended by caution if dislocations

of meaning are not to result are important services which a thoroughgoing naturalism (the position he adopts) can render" (p. 41). Many logical empiricists get baulked down when they are confronted by the need of determining rules "for establishing the correspondence between the idealized objects of the theory and those of the real world". (p. 135) In this they betray their inability to understand the function of scientific epistemology; and this matter vitally concerns the verification of meanings. Professor Nagel takes pains to show how a simple verifiability theory can be replaced by an operational theory of verifiability, according to which "it is the structure of subject-matter which is the ultimate ground of intelligibility". (p. 149) The contention regarding the significance of propositions needing to fulfil the condition of being true or false has its merit precisely because "it calls attention to the fact that questions of significance and intelligibility are not divorced from the questions of possible truth" and "questions of possible truth are determined by considerations of structure of subject-matter". (p. 149)

In summing up Professor Nagel's approach to logic and scientific method we might say that he manages to pay due regard to the legitimate claims of both empiricism or experimentalism and rationalism or apriorism. Thus he maintains that Mill "is right in holding that statements which formulate various quantitative relations between properties of physical objects—statements which frequently have the same appearance as those of formal arithmetic—are inductive generalizations from experience"; but that Mill "is wrong in believing that the propositions of "pure" arithmetic are experimental truths". (p. 85) Similarly, he argues that Frege-Russell's view that arithmetical truths are necessary is tenable; "but involves a fatal oversimplification of the situation when it is taken to mean that in the context of empirical inquiry—even in such a simple operation as that of counting—all the expressions contained in statements of quantitative relations are definable exclusively in terms of purely logical notions". (p. 85)

This reviewer feels, quite apart from any questions of loyalty to a former teacher, that into the state of confusion generated by the sterile speculations of the analysts and the conflicting pronouncements of the upholders of the "scientific method", Professor Nagel's essays bring a breath of fresh air. As Professor John Herman Randall points out when there is so much cavalier talk and elliptical reference to "scientific method", it is good to read

these essays of our author who "makes explicit that the devotion of naturalism to scientific methods does not include any hostility to rational thinking". (*Naturalism and The Human Spirit*, Ed. Y. H. Krikorian, p. 381).

III

So far this reviewer could follow Professor Nagel in that he successfully makes logic a sound method of inquiry. He has saved logic from such a false notion of it as the examination of the operations of mind, empirical and transcendental; and has also welded the widely differing notions of logic as the "study of the formal rules of valid reasoning", as "the inquiry into the apriori basis" (though not the transcendental implications) "of all empirical knowledge" and as "the science of symbolic algebras and of the conditions of their significance and application" into one synthetic whole. He has given a new interpretation to the role of critical thought "in every department of human activity" and has shown ways of conducting "a rigorous inquiry into the conditions upon which the significance and effective operation of discourse rests". (p. 52) But one is compelled to differ with him when he asserts that logic conceived this way "is a genuine organon for achieving a rational life and society". (p. 52).

Professor Nagel believes that naturalism is "latent in the behaviour and common beliefs of most men" and this he believes also can be formulated into "a large view of the world". (p. 40) To say the least, the theory of latent naturalism or so to say the innate naturalism of man is naive and is tantamount to ignoring many facts that philosophers who take a religious view can adduce as evidences of the innate religiosity of man; perhaps both need be equally subjected to criticism. Professor Nagel maintains, true to his naturalistic position, that man is part of nature, that nature (along with man) "is completely intelligible" in terms of its determinate characters and that "the alleged operation of disembodied forms is not relevant to nature's order or to our knowledge of it." Man's position in nature is neither inferior nor superior to that of atoms, stars or nebulae; the values which men cherish are an expression of the needs "which the subtle organization of their bodies develops" (p. 40) Yet he is opposed to the doctrines of the evolutionists and others who speak of the "continuity" of man with the pervasive traits of nature, because he suspects that what they have back of their minds is the desire to build up "teleological systems, producing definite ends, so that nature itself is

properly understood only when construed as the habitat of human society". (p. 10) "A mature naturalism", he asserts "seeks to understand what man is, not in terms of the discovered or postulated continuity between what is distinctive of him and what is pervasive in all things". (pp. 10-11) As he conceives it, the task of philosophy is not to *explain* why things are as they are, but "to be analytical and critical". (p. 41) Accordingly, man is not to be explained but only to be critically and analytically understood. Thus "human nature and history [in short] are *human* nature and history, not the history and nature of anything else". (p. 11) "A mature naturalism", he tells us, "attempts to assess man's nature in the light of *his* actions and achievements, *his* aspirations and capacities, *his* limitations and tragic failures, and *his* splendid works of ingenuity and imagination". (p. 11) If he would admit this, as he does, one cannot see the point of his objection to the doctrine of free-will (vide his essay, "Science and Society"). He criticizes Mr. Joseph Wood Krutch because "he regards human freedom and self-determination to be indubitable" and because he denies the validity of alleged "mechanical determinisms". (p. 424) It is certain that Mr. Krutch deservedly draws the ire of Professor Nagel for likening the "indeterminism" of the electrons to the "freedom" and "self-determination" ascribed to human beings. But such spurious similarities aside, the fact of human freedom or freewill remains, and unless Professor Nagel is not covertly interested in "explaining" (much as he dislikes the word) man and human society as part of nature, it is difficult to understand his opposition in this regard. For, after all, freedom or free-will is as much a fact of experience (call it part of human nature if you like) as anything else. Or has Professor Nagel conceived of the possibility of regarding human nature minus freedom? If so, on what is such denial of freedom based? Concerning moral problems (you will grant it is a specifically human thing, in distinction from nature as such), Professor Nagel says that they "arise from a conflict of specific impulses and interests". Also: "They cannot, however, be effectively invoked from standards derived from the study of non-human nature, or of what is allegedly beyond nature". (p. 11) If the study of man is to be conducted in isolation from the study of matter and the study of God, we may agree to it at least for the sake of argument. But this is not what Professor Nagel does. He definitely refers man to matter as he himself says that he does not deny "that even the most distinctive human traits are dependent on things which are non-

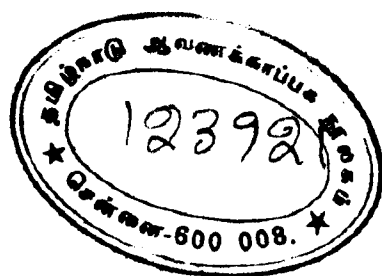
human (meaning matter)", and that "knowledge of other things (material things) contributes to a just appraisal of what man is". (p. 11) In this respect it seems an atheistic existentialist like Mr. Sartre is more consistent, for when he says that true humanism is a study of man without referring him either to God or to matter, he means it and practises it. Of course we may not go to lengths of saying with Mr. Sartre that man is to be defined as freedom or unlimited and "dreadful" freedom, but we cannot miss the point he raises. It seems that history and philosophic anthropology cannot be regarded in naturalistic terms, because the pervasive traits of nature and the pervasive traits of *human* nature are so remarkably incompatible as not to allow identical handling.

Lastly, however, it may be reiterated that the book that we have before us, in spite of the very significant point that we have just raised against part of its contentions, is a very extraordinary achievement in penetration and clarity. The writer has certainly rendered a signal service to the philosophy of analysis. Some of the more technical essays like, "A Formalization of Functionalism", and "The Ground of Induction" contain stuff that will put to shame some of the more cumbersome writings on the same topics by people like Carnap and Reichenbach: they are models of brevity, balance and clarity. The book covers a wide range of topical interests, like social philosophy, political philosophy, ethics, education, all of which being approached from the self-same rigorous methodological angle. The author has probed with acute skill the favourite fetishes of our age: such, for example, as he does in the essays, "Einstein's Philosophy of Science", "Dialectical Materialism in Science", and "On The Philosophical Battlefield", the last two of which being a devastating criticism of the tendentious and unscientific and unphilosophical theories of the two prominent English Marxist writers, J. B. S. Haldane and Maurice Cornforth respectively. Here is a book to read, mark, learn and inwardly digest, for to study it is a labour that will yield rich returns in terms of philosophical illumination.

—J. G. ARAPURA

Books Received

1. *Concerning Human Understanding*, by N. V. Banerjee, published by George Allen and Unwin, price 30s. net.
2. *Whitehead's Metaphysics*, by Ivor Leclerc, published by George Allen and Unwin, Ltd., price 21s. net.
3. *The New India (Progress through Democracy)*, published by The Macmillan Company, price 2\$-50 cents.



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