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Editor DAYA KRISHNA

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Science and consciousness

JERZY A. WOJCIECHOWSKI
University of Ottawa, Canada

INTRODUCTION

A subject as broad and complex as that of the relationship between science and consciousness may be discussed from many points of view. It would be rather futile to try to enumerate all of them, let alone discuss them in one paper. The approach which will be chosen here is dictated by the context in which the paper will be presented, namely, the Third International Seminar on the Living State. The seminar is a scientific meeting dedicated to the study of the biophysical aspects of life mainly on the cellular and subcellular level. Consequently, it seems logical that the first thing which has to be done in this paper is to justify it, namely, to explain why a paper dealing with consciousness is presented at a biophysical conference.

The question may be formulated as follows: Why be concerned with conciousness in a biophysical study of life? The question is, indeed, intriguing, at least to a Westerner. That it is intriguing to a Westerner and much less so to an Indian is a fact which is very revealing and relevant for the discussion of the relationship between science and consciousness. The difference in the perception of this relationship reflects the difference existing between Western and Indian cultures in their perception of reality and their mode of thinking. Cultures are fundamental facts of life structuring our thought and behaviour. And equally important are cultural differences. These differences will play a significant role in the analysis of the problem discussed here. Science, *as it exists presently*, is a preponderantly Western product, expressing a Western cultural paradigm. In light of this situation, let us approach the question of the relationship between science and consciousness by discussing in the first place the notion of consciousness in the two cultures. This should allow us to understand better the nature of this question as well as the reasons why the discussion of the relationship between science and consciousness at a scientific meeting is more intriguing for a Westerner than for an Indian.

Chances are that, if the seminars on the living state were organized by a Western scientist, the question of consciousness would not be included in the programme at all; and, even if it were mentioned by a speaker, it would be considered as a bothersome and irrelevant side issue. That this is not the case is due to the fact that the organizer of these meetings is an Indian who is also a scientist. It is not the science which he has studied and practised in Western Europe and North America which prompted him to invite a philosopher to speak about consciousness, but his Indian *Weltanschauung*.

THE IDEA OF CONSCIOUSNESS: EAST AND WEST

The idea of consciousness is an integral part of the perception by a culture of the world (reality, being) and of the human being. Although it may seem illogical and unjustifiable, this all-important perception is not univocally determined throughout the human species. It differs from culture to culture. The way we perceive the world and ourselves determines to a large extent our hierarchy of values which, in turn, shapes our opinions about more particular problems and our mode of behaviour. In other words, the *Weltanschauung* is a fundamental determinant in human life with far-reaching theoretical and practical consequences. The notion of consciousness is an important component of the view of the world, and it, too, has many consequences. The question 'why be concerned with consciousness in a biophysical study of life?' and the present paper are among them.

What characterizes the Indian view of the world is the belief in the illusory nature of the material order of reality (the perceptible world) and the cosmic nature of consciousness present in all forms of life. Consequently, consciousness is seen as a non-personal, trans-individual, fundamental property of living beings. In this perspective, a study of life excluding consciousness from its purview is a very truncated study indeed, which explains why I speak at this conference. What needs explanation and justification in the study of life from the Indian point of view is not the discussion of consciousness, but rather the scientific analysis of the physical aspects of the life phenomenon. These aspects belong, after all, to the realm of *mana*. From the perspective of the traditional Indian perception of reality, the problem to explain is the opposite of that perceived by the Western mind.

Without attempting to dwell on the Indian perception of consciousness any longer, let us turn now to the Western notion of it. The difference between the two is drastic, and the consequences of this difference are very far-reaching indeed. Let us begin the discussion of the Western point of view with the description of its idea of reality in general. In contradistinction to Indian culture, Western culture views physical reality as real, meaningful and important. Even if it has not been always so, in modern times, and especially in the scientific perspective, whatever is material is considered real and certain. Consequently, the immaterial is, at best, less certain and, at worst, simply an illusion. Contemporary Western culture tends to place *mana* at the opposite end of the modes of being in relation to Indian culture. This fact allows us to understand why the Western world became so preoccupied with science and why science and technology play such an important role in the life and mentality of the Western man. There is a positive feed (feedback, feed-forward) relationship between the Western idea of reality and the development of science.

The Western notion of reality may be shocking to an Indian mind and also to a religiously minded Westerner. In fairness to Western culture, it is necessary to explain that the materialistic perception of reality, prevailing increasingly since the beginning of modern times, was preceded much earlier by the elaboration of the all-important distinction between the transcendental Absolute and the finite world of creatures. The distinction was the cornerstone of the Judaic religion. From Judaism it passed to Christianity, and through it became the cornerstone of the Western *Weltanschauung*. Having distinguished between two radically different orders of reality, the Western man could distinguish formally between religion and religious perspective on one side, and lay preoccupations and points of view on the other. Thus, he could separate science from religion, and concentrate on the development of the former. This is why the inclusion of a discussion of consciousness in the programme of a scientific conference about the phenomenon of life is so intriguing, to put it mildly, to Western scientists.

An analysis of Western ideas about consciousness will further elucidate this situation. In the Western tradition in the created, i.e., finite, order of reality, consciousness, far from being a cosmic factor, is a specific, i.e., distinctive property of humans. Consciousness is the product of rationality, and rationality is the exclusive, distinctive property of the human species. Moreover, *consciousness is always personal*. This, again, is an important difference between the Western and the Indian perception and evaluation of consciousness. The difference becomes even more obvious in the light of the difference in the value which the two cultures attach to personality and the personal mode of existence. Their views on this matter are diametrically opposed.

As we know, the Indian traditional view of personality is mainly negative. Personality means distinctness, and distinctness is seen as limitation preventing a union with, and absorption in, the All which is the Absolute. Thus, distinctness is the root of radical imperfection, and, consequently, personal existence is suffering. The aim of life should consist in getting rid of distinctness, i.e., total depersonalization which is the aim of *yoga* exercises. In the West, instead, personality is seen as the highest form of perfection in the world of creatures, something eminently desirable, worth cultivating and developing. The justification of the value of personality has its roots in the Judeo-Christian notion of Divinity. God is conceived as the transcendental, Supreme Person, and Supreme Intelligence. Man was created in His image, and man's personality is a feeble and remote copy of divine personality, but a copy nevertheless.

Consciousness is an essential property of personality, a basic condition of the authorship of acts posited by the individual, of his capacity to distinguish between good and evil, of responsibility and, consequently, of ethics. From the Western point of view, it is, indeed, difficult to overexaggerate the importance of individual consciousness as an aspect of personality and of the personal mode of existence. In the Judeo-Christian tradition, humanity is a temporal fact; it had a beginning, has a meaningful history, and will have a determined end. Consequently, the phenomenon of human consciousness has also a temporal dimension, and twofold history, namely, general and individual. It appeared on the earth with the appearance of man, and each individual

consciousness begins with the birth of the given person. In other words, consciousness is not a permanent component of this order of reality. It did not exist always, and will persist only until the end of the human species.

As far as the origin of consciousness is concerned, there are two points of view: religious and scientific. Both accept the thesis of the temporal origin of consciousness, but they differ as to the explanation of this origin. Religion places the origin of consciousness at a particular point of time—the creation of Adam and Eve. For science, consciousness is a product of biological evolution which culminated in the development of the human species. It is, therefore, perceived as having evolved gradually over an, as yet, unspecified period of time. What is important, and all the differences between the religious and scientific point of view notwithstanding, is the fact that consciousness is perceived in the West in the frame of *linear* time, i.e., in a historical context. The notion of linear time is in itself a culturally determined notion proper to Western culture. It differs from the traditional Indian perception of time. A word of explanation is, therefore, in order.

As in the case of the Western perception of personality and consciousness, the notion of linear time has a religious root, namely, in the Old Testament. It is the consequence of the belief that humanity and the world have a history, that this history is meaningful, because it has a beginning and it will have an end. It represents the journey of humanity from its creation by God to the ultimate return to God. Consequently, each moment and each event of this journey is unique, non-repeatable and meaningful as an element of this collective, non-repeatable, unique journey. In the process of laicization of Western culture, the linear notion of time was taken over by science and became a basic scientific concept, one of the three notions—mass, extension, time (c.g.s.)—in terms of which science expresses all measurable properties, i.e., all empirical data, and beyond which it refuses to venture. Today, the religious root and justification of the linear time is all but unknown to the great majority of scientists who consider this notion as a perfectly valid and obvious scientific concept. It is worth stressing the origin and the present status of the notion of linear time because of its multiple and far-reaching consequences.

Having pointed out the basic differences in the perception of consciousness in the Indian and Western culture, and remaining in the Western frame of mind, let us now turn to a more detailed analysis of consciousness. The analysis will be made with a view to elucidating the question of the relationship between science and consciousness, and should not be taken for an attempt to give an adequate psychological description of consciousness. Many of the aspects which are psychologically important will be left out as not pertaining directly to the problem under discussion. It is advisable to begin the discussion of the nature of consciousness by pointing out, in the first place, what it is not. The negative description will allow us to distinguish it from other aspects of reality. The most fundamental fact in this respect is that consciousness is not a body, and lacks the properties characterizing material existence. Consequently, it is not perceptible through the senses. It is not spacially extended, it has no physical size or shape. It is not composed of distinguishable parts as are physical objects. Therefore, it is not measurable, and no quantity can be attributed to it. It cannot be described in the c.g.s. system in which scientific data are expressed. Hence it is not subject to quantitative analysis, and mathematics cannot be applied directly to the study of consciousness.

Having said what consciousness is not, let us now follow up the negative description with a positive analysis. Consciousness is accessible through introspection. We can know it through introspection, because consciousness is an element of the inner life. There would be no properly human inner life without consciousness. The problem with this statement lies with the word 'inner'. Human knowledge is grounded in sense perception, and language reflects this situation. The word 'inner' refers, first of all, to a spatial, i.e., physical, relationship, perceptible through the senses. Although, when applied to consciousness, the word 'inner' is used only figuratively, it does convey easily a wrong impression of being in the physical inside of the body. If this were the case, consciousness would itself have to have an extension or, otherwise, be a geometric point, because being inside or outside applies only to extended bodies or points. We are, therefore, left with the apparently meaningful question: where is the inner life and where is consciousness? The answer is that this is a wrong question. It is inapplicable, therefore meaningless.

The above discussion gives us an idea of the difficulty of dealing with consciousness in general and especially in terms of ordinary language, let alone in scientific terms. This would not be perhaps so disturbing, had consciousness been a secondary aspect of human nature and a side issue. But this, definitely, is not the case, it is quite to the contrary. Consciousness is the foundation of rational life and behaviour. All what we recognize as being properly and specifically human involves consciousness. Without it there would be no thinking and understanding as we know it, but even on a more fundamental level there would be no meaning to our ideas and words. Hence there would be no language. Consciousness is necessary for the distinction between truth and falsity, between good and evil. Without consciousness there would be no ethics and no psychological freedom. Nor would there be any guidance or directionality to human life, whether on the individual or social level beyond that provided by physiological needs and drives. In this context, the development of science would be not only incomprehensible but also impossible.

Those who may have doubts about the role and/or the importance of consciousness should reflect on the development of humanity. It is a massive and obvious phenomenon. There are two basic aspects to it, namely, physical and psychological. The first is the ever-accelerating growth of the human biomass. The second may be somewhat less striking but certainly equally important increase of knowledge, level of education of humanity in general and of the associated level of awareness of individuals and entire societies. There are constantly more individuals who are more knowledgeable, more conscious

of themselves, their situation, the state of their society and the state of humanity. Far from being accidentally parallel, the physical and psychological developments of mankind are intrinsically related and interdependent. If consciousness is what makes us specifically human, then the progress which the Western man is so preoccupied with and intent on producing is a process of humanization of humans. Obviously, humanity is an unfinished business, and has still a long way to go before realizing fully the human potential. It is in this context that the question of the relationship between science and consciousness acquires its full meaning.

Earlier, we have discussed the notion of personality and the positive value which Western culture attaches to it. We have also stressed the importance of the fact of consciousness in the Western perception of the phenomenon of personality. It is precisely because of consciousness that humans are persons and are perceived as being distinct from all other creatures. This distinctiveness of humans is also the reason why they are perceived as being superior to other creatures and as having been created in the image of God. The development of personal consciousness is seen as the development in the right direction, namely, in the direction of greater personalization of man. By all available evidence this process is, indeed, taking place. The more we are persons and the more we are conscious, the more must we be aware of the consequences of our consciousness. Among these consequences is the consciousness of the problem of the scientific study of consciousness and of the growing awareness of the globalization of humanity. The all-important process of globalization, i.e., integration of mankind, involves growing intellectual, cultural and material interdependence on a worldwide scale. This, in turn, produces greater intersubjectivity, greater need of intersubjective relationships, and greater awareness of time.

The Impact of Science on Consciousness and on Its Study

The evolution of humanity is not an uncaused or accidental process. In order to understand this process, we have to view it as a systemic phenomenon, the result of the interplay of several factors. Among them, the most dynamic factor, and the one which directly produces the change in the human situation, is the development of knowledge.* The development of knowledge is a massive fact and of highest importance to humanity. It does not occur, however, uniformly everywhere. One of the most striking facts about knowledge is that there has never been one common, equally developed body of knowledge everywhere. (We shall call a body of knowledge a knowledge construct—KC for short.) What, in fact, exists is a multiplicity of KCs particular to each culture. They express different world-views, different levels of development and are accepted in areas differing very much in size, from local KCs particular to a small tribe to the Western KC dominant over large parts of the globe. The

*Vide the attached charts.

rate of development of KCs is very different indeed. It ranges from almost steady state, stationary KCs of stone age societies, to the evermore rapid advancing Western KC.

In the past four centuries, the growth of the Western KC was produced mainly by the development of modern science. As it is well-known, the development of modern science was made possible by two factors, namely :

(*a*) The invention and systematic use of the experimental method; and
(*b*) The concentration on the quantitative, i.e., measurable aspects of reality and the use of mathematics for the analysis of the data.

The experimental-mathematical method had its philosophical antecedent and justification in the shift from the Aristotelian to the Platonic frame of thought and the resulting conviction that the essence of reality is quantity. Quantity is adequately represented by numbers; therefore, mathematics is the chosen tool for studying the world. This belief provided the justification for the conviction that experimental science is not just *a* method of knowing but that it is *the* method, all other methods being less perfect, inadequate, and, far from being complementary, truly secondary.

The invention of modern scientific method was not only a turning point in the history of mankind. Its far-reaching consequences are relevant to the problems discussed in this paper. Let us begin the analysis of some of these consequences by discussing the notion of the scientific datum. The data of modern science represent spatio-temporal phenomena. This is not an accident. Space and time are seen as objective, fundamental aspects of physical reality. They provide the framework for all observable events. Moreover, spatial extension is the most obviously quantitative and most easily measurable aspect of reality. Space can be conceived as being homogeneous, composed of equal parts which can be counted, and, therefore, quantified. Aristotle has defined quantity as 'parts outside the parts'. This definition may, as well, be applied to space.

Having opted for quantitative knowledge, science tried to view all other aspects of reality as if they were space-like in their nature and expressed them by means of the c.g.s. system. This is why science cannot cope with the problem of consciousness in scientific terms. It has no handle for dealing with this problem. The choice of the quantitative approach and the condition of verifiability resulted in the limitation of the subject-matter of science and the exclusion of those aspects of reality which did not satisfy the conditions imposed by science. Among the phenomena which found themselves outside the purview of science was consciousness.

Empirical science exists in symbiotic relationship with technology. Indeed, science could not have developed as it did without technology providing it with adequate research tools. In turn, technology could not have produced the sophisticated devices without the theoretical basis provided by mathema-

tics and physical sciences. The result of the co-operation is the growing power of humans over nature and over themselves. The relationship between knowledge and power is obvious in the case of science. However, this relationship is not limited to the scientific mode of knowledge. Science and technology made us aware of this relationship which is, in fact, universal. Let us express this fundamental property of knowledge in the form of a law:

LAW I: *Knowledge is power*

All knowledge is power, whether it is theoretical or practical knowledge, empirical or contemplative, Eastern or Western. They may differ in the intentions of the use of power, in the mode of its use and in the consequences produced, but not in the fact that knowledge does bestow power on the knower.

The exercise of power transforms humanity and the world around it. The consequences of the use of power, i.e., of the rational activity are many, and, indeed, far-reaching. Especially, scientific knowledge becomes more and more invasive, manipulative of the object, powerful and diversified. At the same time, the growth of science presupposes and generates communication and co-operation on an ever larger scale. Thus, science becomes increasingly more synergistic and globalized. The development of science impacts into humanity, both on the material, biological, as well as on the intellectual levels. The more science advances, the greater is our capacity to act. The more active we become, the more knowledge is desired and necessary for individuals and societies to survive in the increasingly competitive world. The more, therefore, science spreads, the more everybody becomes dependent on knowledge and on those who have the knowledge which one does not have but needs directly or indirectly. Nobody possesses all the knowledge necessary for an advanced mode of material and intellectual existence. This is why everybody becomes dependent on the specialized knowledge of somebody else. Consequently:

LAW II: *Knowledge (science) creates (global) interdependence*

Interdependence induced by the development of knowledge affects individuals and societies, nations and cultures alike. It leads to a new stage in the development of humanity, namely, the globalization of mankind alluded to in the previous chapter. We may, therefore, formulate a corollary of Law II:

LAW III: *The development of knowledge (science) produces the globalization of humanity*

This is an irreversible process which, short of a global catastrophe, will continue to develop. Politics, ideologies and various local interests may and will interfere with it but will not be able to stop or revert it as long as knowledge will keep increasing and population growing. Globalization will have important consequences for the level of consciousness.

Earlier in this paper we have mentioned the growth of awareness accompanying the physical development of humanity. Let us now point out that the growth of consciousness is directly related by positive feedback to the growth of knowledge. This relationship may be expressed in the form of a law:

LAW IV: *The growth of knowledge (science) produces the growth of consciousness*

It means that as long as knowledge will progress, and nothing indicates that it will stop to develop, humanity will be increasingly more conscious on the individual, social and global level. Therefore, it will be more and more preoccupied with problems of consciousness, its nature, its state, its impact and its development. In other words:

LAW V: *The growth of knowledge (science) produces the need to study consciousness*

Given the differences of perception of consciousness by different cultures, it is easy to foresee that thedevelopment of knowledge will bring about a growing need to study and compare the perceptions of consciousness proper to different cultures. Since the Western perception of consciousness is closely related to the scientific point of view, it will become increasingly necessary to elucidate the relationship existing between science and consciousness. It means that:

LAW VI: *The development of science produces the need to study the relationship between science and consciousness*

The need to study this relationship is already, albeit obliquely, felt in physics. The discovery of the subatomic level of reality and the realization of the relativity of the human observer destroyed the simplistic belief of classical science in the objectivity and absolute nature of our knowledge. It made us aware of the unavoidable subjective factor in all our knowledge, including the 'hard' sciences. On the other hand, cultural anthropology revealed to us the cultural conditioning of science. There is but one step from problems of subjectivity and cultural conditioning to the problem of consciousness. For reasons explained earlier, it is a very uncomfortable step to take for scientists, but they will have to make it, if they want to advance science on a broad front. The great advantage of the scientific method is its independence from the preferences and wishes of individual scientists, and, therefore, so is the logic of the development of science. The more advanced become the methods of observation, the more they become structured, artificial, dependent on conscious decisions and on highly sophisticated theoretical knowledge of the scientist. The more theoretical becomes science, the more it is consciousness bound.

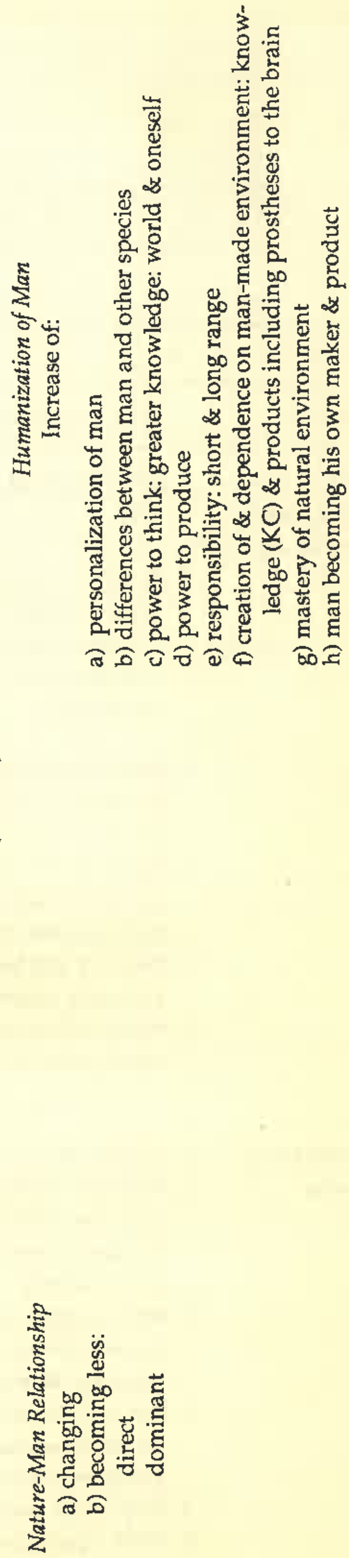
In its search for answers to known facts and problems which they pose to the inquisitive mind, science has continuously to make progress. To explain the known it has to investigate the unknown. This is not only the result of the insatiable curiosity of the human mind; there exists also an objective reason for this situation, namely, no single fact and no set of facts can be explained within itself, because none of them is its own cause. To explain it, one has to go beyond it, i.e., to further and broaden the investigation. It may seem that the definitive explanation of a field of inquiry is at hand or within reach, as it seemed in the case of classical mechanics toward the end of the nineteenth century. The discovery of the subatomic level shattered this comfortable feeling. Now we are aware of the fact that we are far away from the Holy Grail of the scientific quest—the definitive explanation.

The supreme rule of science is submission to facts. The encounter of new entities or new types of problems obliges science to adjust to new situations. Thus, science is a self-regulating system, continuously broadening its scope of research and its conceptual framework. The refinement of the research apparatus makes possible not only the observation of minute phenomena but also the detailed study of such macroscopic entities as the living brain in action. It is now possible to observe the manifestations of the various states of consciousness in the brain and in its functioning, beginning with the holistic aspect of the brain and ending on the subatomic level. Although, now as before, science cannot observe consciousness as such, it can study now its organic manifestations in much greater detail than ever before. These manifestations are expressible in the c.g.s. system and constitute a legitimate object of scientific research.

True to the logic of inquiry, science will have to ask questions about the causes of these phenomena. The more the methods of investigation will become refined and powerful, as they certainly will, the more the consciousness-related phenomena will become observable and known, and the more, then, science will have to investigate them, inquire about their nature and source. In the process, science will probe the self-imposed limits of the sphere of its validity and will have to adjust its methods and its conceptual apparatus to the novel situations. One thing which it will not be able to do will be to avoid the problematic of consciousness. Facing squarely this problem, it will become a better mode of knowledge, more adequate for coping with the overwhelming richness of human reality. It may then become less a one culture product, more considerate of other cultural perceptions and less destructive for non-Western cultures.

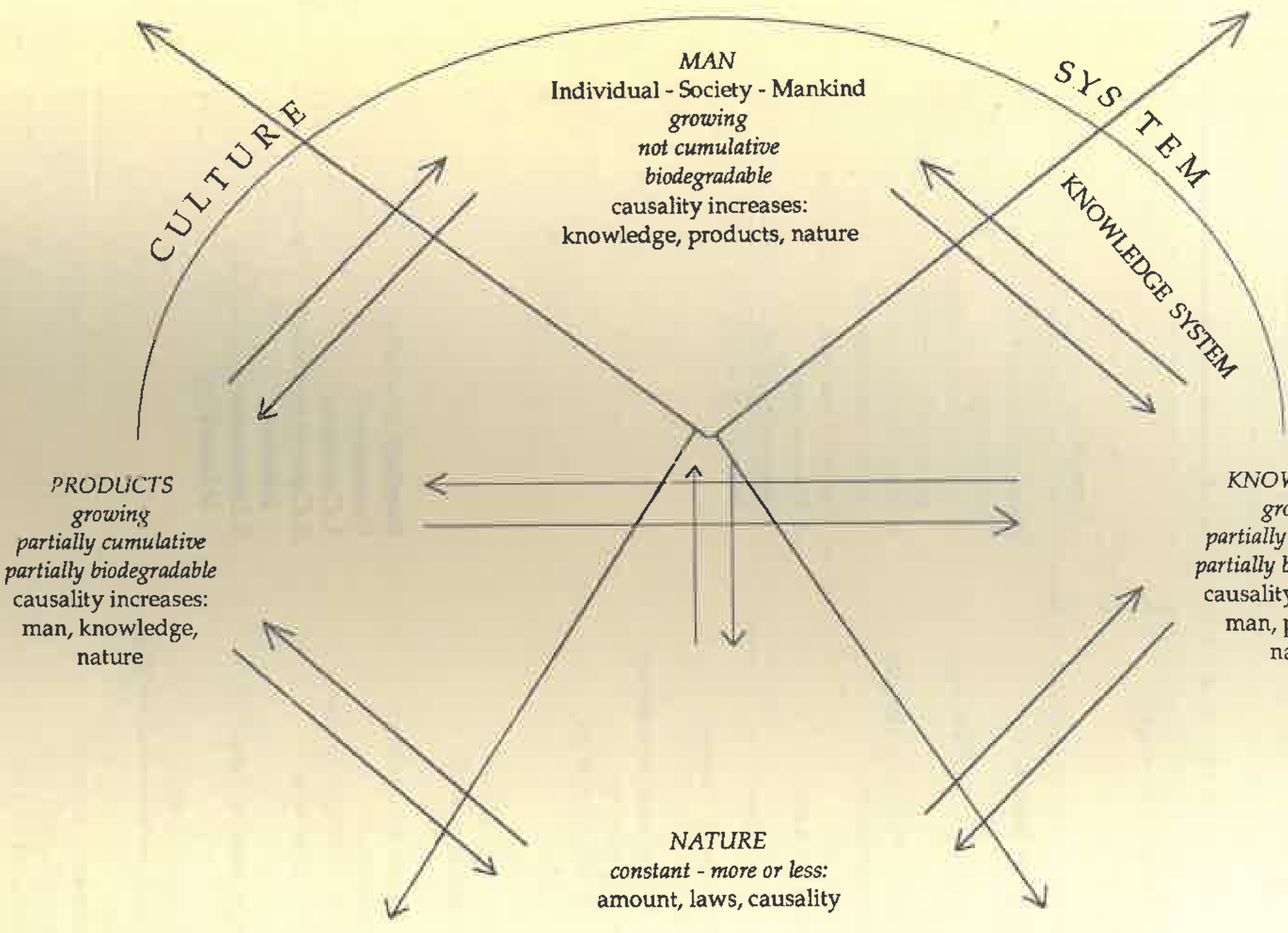
CHART I

THE EXISTENTIAL SYSTEM OF MAN
(ESM)



dominant

d) power to produce
e) responsibility: short & long range
f) creation of & dependence on man-made environment: knowledge (KC) & products including prostheses to the brain
g) mastery of natural environment
h) man becoming his own maker & product



Globalization of Man
growth of complexity and of interdependence of:
- a) cultures
- b) societies
- c) conditions of life
- d) synergy

Temporal Dimension
growth of the awareness of time & change of relationship to time:
- a) measurement of time
- b) management of time
- c) acceleration of human time (history)
- d) devaluation of the past as teacher & guide
- e) increase of the importance of the future

Knowledge - the word is used here in the sense of the sum total of intellectual products: subjective & objective, scientific & otherwise, past & present

Systems -the knowledge system (KS): man - knowledge (KC); the culture system: man - knowledge - products; the ESM: man - knowledge - products - nature

ESM - the system is dynamic. It is implosive and self-energising and form-creating: it structures human existence inducing increasingly higher forms of behaviour and organization. It achieves this by generating constraints (problems) and tensions. It transforms lower, material energy into higher, intellectual energy thereby generating the proper human energy and power to act rationally. The system grows in size, complexity and impact on all elements of the system. The ESM is an evolutionary device. It forces man to evolve toward higher levels of humanness involving greater rationality, consciousness, responsibility, ability to cope with complex problems, creativity and harmonious co-existence with fellow humans, resulting in greater synergy and unity of mankind.

arrows indicate feed (feedback, feed forward) relationship

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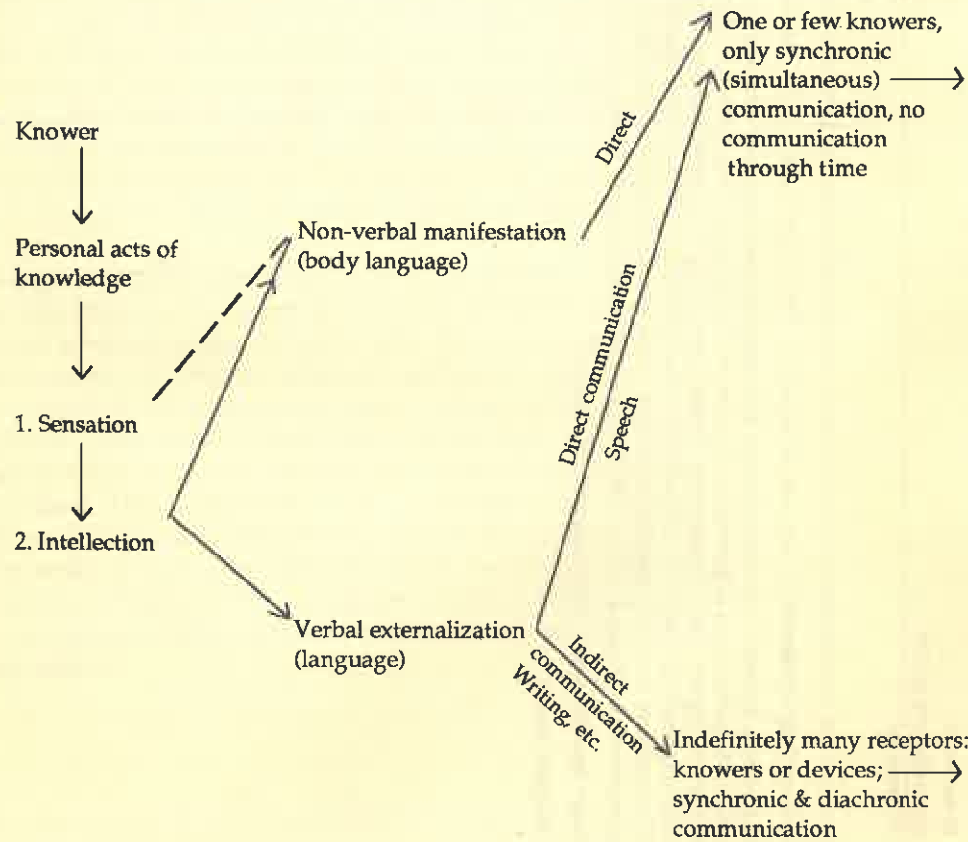
CHART II

E X T E R N A L I Z A T I O N O F K N O W L E D G E A

Subjective World	Objective World				
Sender	Expression of knowledge	Receptor	Storage of knowledge ⟶	Conse	
				Knowledge	Culture
			Storage in knowers Consequences: 1. No storage outside of knowers 2. Storage limited by the capacity of memorization 3. Limited retrieval 4. Memorization, retrieval - subjective acts 5. No verification of these acts or contents possible 6. No self-reflexive (critical) knowledge 7. No science 8. Small scale, low level intellectual synergy	*Knowledge Construct 1* Consequences: 1. Not cumulative beyond the limits of memory 2. Stable: capacity for growth *limited* by the limits of memory 3. None or little differentiation of branches of knowledge	"Stable state", non-literate cultures: hunter, gatherer, nomadic, primitive agriculture
			Storage outside of knowers Consequences: 1. Unlimited storage capacity 2. Unlimited retrieval 3. Storage, retrieval - objective acts 4. Verification possible 5. Self-reflexive (critical) knowledge 6. Science 7. Prostheses to the brain 8. Large scale, high level intellectual synergy	*Knowledge Construct II* Consequences: 1. Cumulative 2. Capacity for growth *unlimited* 3. Differentiation of branches of knowledge	Progress Cultural evolution leading to world culture



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N D I T S C O N S E Q U E N C E S

q u e n c e s

Population	Social Organization	Relation to Nature
More or less: sparse, steady populations	1. Small (organic) groups: family, band tribe 2. Principle of unity & organization: a) procreation, b) lineage, c) authority of the principal procreator. General characteristics: stability of social structures 3. Relationships: a) diachronic: common ancestor, b) synchronic: personal, one-to-one 4. Status of the individual: no insistence on individuality apart from group identity. Basic unit: the group 5. Property and law: only private (ruler's) no public property or law 6. Work: little or no specialization among adult males or females	Subordination to nature Consequences: Relatively non-destructive relation, in ecological balance with nature
Accelerating growth	1. Large and growing societies 2. Principle of unity: culture, territory, common past. Principle of organization: varied, no one universal model. General characteristic: variability 3. Relationships: a) diachronic: common social (national) history & culture, b) synchronic: personal & impersonal 4. Status of the individual: greater distinction between individual & group. Basic unit: group or individual 5. Property & law: private & public 6. Work: specialization	Domination of nature : Consequences Destructive relation, exclusion of man from the system of nature's ecological balance

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The problem of causation and time-symmetry in physics

FILITA BHARUCHA
Indian Institute of Technology, Bombay

1. *Introduction*

The endeavour to understand the link between physics, both classical and modern and the general philosophy of the world has been occupying the minds of both physicists and philosophers for a long time. Amongst the physicists, Max Planck,[1] the originator of the quantum theory has raised a question in his "Philosophy of Physics". According to him "the connection between physics and the endeavour to attain a general philosophy of the world, it may well be asked what this connection is". Max Planck himself has suggested that such a general philosophy would be satisfactory if it covers the physical as well as the intellectual realms.

So far classical physics has proceeded on the following two assumptions:

(i) The existence of events, an event being a physical occurrence at a point in space and at a moment of time.
(ii) The possibility of obtaining a complete grasp of the laws governing events.

The methods of obtaining such a grasp of the laws governing real events in classical physics have been devised by both physicists and philosophers following a number of alternative paths. One such path which so prominently figures in the search of new direction towards understanding of these laws is Phenomenology.[2] The onward progress of scientific research can hardly be possible without, at some stage in its development, recourse being taken to the practice of phenomenology. During the slow and continuous evolution of the ideas in the understanding of the laws of nature many new paths are traversed, many insights are acquired till at some stage we achieve a quantum jump in our understanding of natural phenomena. We have termed this a "breakthrough". In the intervening period between one breakthrough and the next, guidance to the process of unfolding of the evolutionary process is provided by phenomenology, it is like a torch which shows the way towards this unfolding.

Einstein regarded his own work as a search for the general laws of nature. Einstein's physical theories have indeed played an important role in the history of contemporary philosophy. In the words of Philipp Frank[3], we can say that "no professional philosopher of the 20th century was quoted so fre-

quently by other philosophers as Einstein was". Einstein was considered as a "philosopher" in the literal sense of a "lover of wisdom".

2. *Causality in Nature*

With the switch over of classical views of nature one could no longer extend the law of causality as understood earlier. Kant treated it as a law which expressed the validity of invariable rules applicable to all events and hence considered it as one of his "categories". It was considered as a form of intuition without which experience would be impossible.

In natural sciences one cannot, in general, begin from fixed axioms as in pure mathematics. Often one realizes that it is not an easy task to have an extensive comprehension of this concept. It should be noted that I do not use the word 'concept' in the sense of a rigid logical construct but as an 'existential' one also. By an existential concept we mean one that we shall try to evolve through experience and intensive observation.

The forecast of every event in the sense-world is subject to a certain inaccuracy. An event in the sense-world is translated by physics into a formal physical world-image. However, the world-image follows definite laws and hence the events in the world-image appear to be causally connected. After arriving at the necessary conclusion after a series of logical deductions in the world-image, one translates the results and interprets them in the sense-world. This translation from the sense-world to the world-image and back again is considered to be the source of these inaccuracies. Classical theories tended to disregard these inaccuracies, since they were not very relevant in the macroscopic realm. The so-called 'indeterminists' are accused of looking for some irregularity behind every rule whereas the 'determinists' for a rule behind every irregularity.

In the opinion of some physicists, the "uncertainty principle" of Heisenberg refutes the causality principle. However, authors like Max Planck feel that this is due to a confusion between the world-image and the world of sense. He feels it is meaningless with reference to physics to ask for the simultaneous values of the co-ordinates and velocities of a particle.

In view of conflicting ideas can one conclude that causality is a heuristic principle? Indeed so far as it appears the law of causality cannot be demonstrated nor can it be logically refuted. However, this seems to be a sterile and non-satisfactory attitude. Perhaps one should investigate further.

3. *The Arrow of Time*

The distinction between past and future disappears when events are interpreted according to the fundamental laws of physics. There exists merely a 4-dimensional continuum of space and time. However, one experiences in one's perception of the world a kind of moving forward in time. In particular, geological and biological changes appear to be evolving forward in time. David Layzer[4] calls it "the historical arrow of time". This arrow appears to

be defined by a series of events which are evolving in time. We see the 'biological arrow of time' as follows :

There is a translation of the code of D.N.A. into proteins by a sequence of nucleotides in a D.N.A. segment which entirely defines the sequence of amino-acids in the corresponding polypeptide. The polypeptide specifies completely under normal initial conditions the folded structure adopted by the polypeptide, once it is constituted. Therefore the structural and hence functional "interpretation" of genetic code is unequivocally rigorous. However, it is important to note that the translation mechanism is irreversible is never seen being conveyed in the opposite direction, i.e., from protein to D.N.A. Evolution, therefore the biosphere necessarily defines a direction of time. This irreversibility of evolution could be considered as an expression of second law of thermodynamics (which we discuss below):

Originally the Second Law of Thermodynamics was put forward by Clausius in 1850, as a generalization of Carnot's principle. It states that within an energetically isolated enclosure all differences of temperature must tend to even out spontaneously. In other words, if initially the temperature is uniform than the thermal potential remains constant, in different areas of the whole. Now no macroscopic phenomenon can occur within an isolated and enclosed space of uniform temperature, viz. the system is inert. Hence it is said that the second law of thermodynamics implies the inevitable degradation of energy within an isolated system, such as the universe.

'Entropy' is the thermodynamic quantity which measures the amount of degradation of energy within a system. Summarising, we can say that every phenomenon, whatever it may be, is accompanied by an increasing amount of 'Entropy' within the system where it occurs. However, statistical mechanics implies that the increasing of 'Entropy' was a statistically predictable consequence of random movement of molecules in the Kinetic theory of matter. The behaviour of molecules in closed spaces enabled us to link the degradation of energy with a statistical measure of disorder within the system. If the increasing 'Entropy' in a system implies a commensurate increase of disorder within it, then an increase of order implies a decrease of entropy, or in other words, an increase of negative entropy (Negentropy). But the degree of order of a system can be defined in the language of information. Therefore, the order of a system can be equated with the quantity of information required for description of that system.

But, Szilard and Leon Brillouin,[5] showed that the amount of information and "negentropy" can be equated. Still, one cannot neglect today one of the fundamental statements of information theory which states that the transmission of a message is necessarily accompanied by a certain dissipation of the information it contains. This may be taken as the theoretical equivalent of the second law of thermodynamics.

However, both these arrows are restricted to a macroscopic level. There

appears no evidence of them at the microscopic level. Then the Question is whether there is time reversal in the microscopic world.

4. *Time-Symmetry*

Most equations in physics are symmetrical with reference to time, i.e., if we substitute—t for t, the equations still hold good. The fundamental equations of Maxwell's classical electromagnetic theory are time-symmetric. The two solutions are called the retarded and the advanced.

The retarded solutions are those which diverge at a finite speed from their associated source charges while the advanced solutions are those which converge on source charges at the same speed. Retarded fields are selected since they appear to correspond to experience while advanced ones appear to contradict experience. However Dirac,[6] in 1938, found that in order to express the empirically well-established formula for radiation damping in terms of a covariant electromagnetic field, it is necessary to employ both the retarded and advanced solutions.

In order to explicate the details, I first outline the basic concepts, assumptions and notations. An electromonotic field will be represented by a second order tensor field denoted by letter F. Charged particles are represented by their Minkowski world lines in a manifold and labelled individually by the Indices a, b, ... The motion of each charged particle is assumed to be governed by Lorentz equations of motion. The electro-magnetic field is assumed to satisfy Maxwell's covariant inhomogeneous field equations. The total field is assumed to be a superposition of field arising from individual (source) particles. In classical L.T.E. (Lorentz Transformation Equations) the radiation experienced by a radiating charged particle is due to the action of charge on itself (self-action). This idea of Lorentz encountered many insurmountable difficulties, e.g. the problem of infinite self-energy.

J. A. Wheeler and R. P. Feynman[7] interpreted the radiation as the response (advanced action) of all *other* charges in the universe collectively known as the *absorber* or *absorbing radiation.* Now the special property of a completely absorbing medium in the theory of radiative reaction is given by the equation.

$$\sum_{a} \left(F^{(a)}_{ret} - F^{(a)}_{adv} \right) = 0 \text{ (everywhere)} \qquad (1)$$

where $F^{(a)}_{ret}$ denotes the field of retarded solutions and $F^{(a)}_{adv}$ the field of advanced solutions of Maxwell's equations. This equation for the condition of absorption is completely symmetrical between advanced and retarded fields. That is, the reversal of time does not affect them. However, Wheeler and Feynman think that it is solely the nature of the initial conditions which govern the direction of the radiation process. They have illustrated this as follows:

Consider the equation of motion derived from Fokker action by Wheeler and Feynman

$$m_a \ddot{a}_i = e_a \sum_{b \neq a} \tfrac{1}{2} \left(F^{(b)}_{ik,\, ret} + F^{(b)}_{ik,\, adv} \right) \dot{a}^k \qquad (2)$$

where ai, gives the position of the ath particle, the dots on 'a' represent the derivatives with respect to 'proper' time, m_a is its mass and e_a is its charge. $F^{(b)}_{ik,\, ret}$ is the field of retarded solutions corresponding to the particle lebelled b and $F^{(b)}_{ik,\, adv}$ is the field of advanced solutions. In the equation (2) the symbol $b \neq a$ over the summation sign indicates that the self-action is omitted. Wheeler and Feynman have shown that the equation (2) reduces to the following by using eqn. (1).

$$m_a \ddot{a}_i = e_a \sum_{b \neq a} F_{ik,\, ret}\, \dot{a}^k + e_a \cdot \tfrac{1}{2} \left(F^{(a)}_{ik,\, ret} - F^{(a)}_{ik,\, adv} \right) \dot{a}^k \qquad (3)$$

However, Dirac[6] has shown that

$$\left[F^{(a)}_{ik,\, ret} - F^{(a)}_{ik,\, adv} \right] = \frac{4e_a}{3} \left(\dot{a}_i \dddot{a}_k - \dot{a}_k \dddot{a}_i \right). \;\ldots \qquad (4)$$

Using the above, we have finally

$$m_a \ddot{a}_i = e_a \sum_{b \neq a} F_{ik,\, ret}\, \dot{a}^k + \frac{2e_a^2}{3} \left(\dot{a}_i \dddot{a}_k - \dot{a}^k \dddot{a}_i \right) \dot{a}^k \;\ldots \qquad (5)$$

The equation (5) represents the equation of motion of the typical particle in a completely absorbing universe. The second term in the above equation represents the force of radiation reaction of the particle 'a' (self-action). Under the time reversal, that is, when $t \rightarrow -t$, the retarded field goes over to the advanced field, that is, $F_{ret} \rightarrow F_{adv}$, so that we have

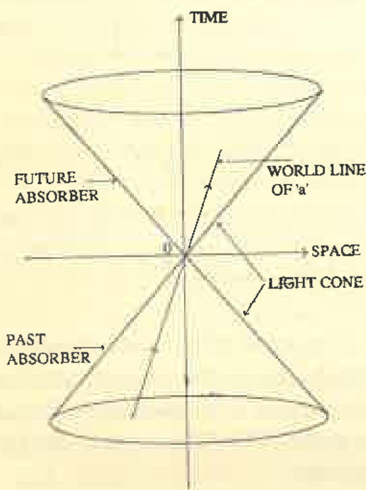
$$m_a \ddot{a}_i = e_a \sum_{b \neq a} F^{(b)}_{ik,\, adv}\, \dot{a}^k - \frac{2e_a^2}{3} \left(\dot{a}_i \dddot{a}_k - \dot{a}_k \dddot{a}_i \right) \dot{a}^k \;\ldots \qquad (6)$$

We observe that equations (5) and (6) have the same form, except for the change in sign of the second term on the right hand side of eqn. (6) and F_{ret} replaced by F_{adv}. Equation (6) shows that the condition of absorption between retarded and advanced fields is completely symmetrical. However, they interpret this, as Einstein does, as the phenomenon of statistical mechanics connected with the asymmetry of the initial conditions, with reference to time. According to them, there is a chaotic motion in the absorber which gives each particle the right impulse at the proper moment of time to generate a disturbance which converges upon the source at the precise instant when it is accelerated (advanced action). The source receives energy and particles of the absorber have diminished velocity.

5. *Cosmology and The Arrow of Time*

The theory of Wheeler and Feynman outlined above was found to be deficient by J. Hogarth[8] since they worked within the framework of the Minkowski *static* universe. However, all modern ideas of cosmology indicate that the universe is not static and Minkowskian in nature but is evolutionary. He has shown that in conjunction with the absorber theory of radiation the electrodynamic arrow of time is shown as a consequence of certain evolutionary cosmological models (steady state model). He feels that though the time-symmetric nature of the formulae of radiation reaction goes against the usual metaphysical presuppositions of the nature of time and causality, one cannot ignore it. Yet one will have to offer consistent reasons to choose the retarded solutions only as required by observations.

At this stage, we give a brief qualitative description of how an absorber theory of radiation predicts the results of observations. Referring to the figure shown alongside, at each point 0 on the worldline of a typical particle 'a', the sources of the force field on that particle lie on the nullcone (the path of light) with the apex at 0 (the location of the particle 'a'). We define this null-cone and the system of particles on it as the absorber of 'a' located at 0.



The part of the absorber which lies in future with respect to 0 is called the future absorber and is denoted by a_F. The part of the absorber which lies in the past with respect to 0 is called the past absorber and is denoted by a_P.

Taking into account the particle 'a', the interaction of the absorber of 'a' with its own field will give rise to additional fields. Let A_F be the additional field originating in a_F and A_P be the correlating field in a_P. Then

$$F_{(a)} = F_{(0)} + (A_F + A_P) \tag{7}$$

where $(A_F + A_P)$ is the field of radiation reaction. It can be shown that $(A_F + A_P) = \frac{1}{2}\left(F^{(a)}_{ret} - F^{(a)}_{adv}\right)$ then we have got the correct formula for the radiation damping.

Hogarth has shown that the combination of an ideal absorber, that is, that absorber for which A_F or A_P is equal to its stimulus and a non-ideal past absorber for which the difference between stimulus and response is significant, results in retarded fields, where the opposite combination predicts advanced fields. If both the absorbers are ideal the observable fields would be time-symmetric. The maintenance of a constant density of matter (steady state universe) is an advantage for obtaining an electrodynamics which is comparable with experience. In conclusion, the electrodynamic arrow of time is determined by cosmological properties of the universe.

6. *Theory of Master-Asymmetry*

The distinguished Israeli physicist-engineer Benjamin Gal-Or[9] has tried to establish causal links among thermodynamic, electrodynamic and cosmological arrows of time, within the framework of a new theory derived from Newtonian gravitation or General Relativity. He employs a 'Laboratory-universe principle of equivalence' and Olber's paradox to demonstrate how the expansion of our isotropic universe affects all irreversible processes on earth.

Gal-Or's main theme is the derivation of the *Master-asymmetry* condition (as he calls it) $dv/dt > 0$ (i.e. expansion) where $v = t/\rho$, where ρ is the density of matter at a time t. He uses this master-asymmetry in conjunction with reversible conservation equations of energy and mass to build his new formalism which he claims replaces the axiomatic formalism of classical and continuum thermodynamics. He concludes by saying that deeply embedded in this chain of causal links are questions related to the very nature of time and to the interaction between thermodynamics (matter) and electrodynamic radiation. The possible interactions are summarized in the table below:

TABLE 1

(a) Master Asymmetry ⟶ Thermodynamic Asymmetry ⟶ Electromagnetic Asymmetry

(b) Master Asymmetry ⟶ Electromagnetic Asymmetry ⟶ Thermodynamic Asymmetry

(c) Master Asymmetry ↙ Electrodynamic Asymmetry ⟵⟶ Thermodynamic Asymmetry ↘ (from Master Asymmetry)

From the very early days Plato considered time to be a redundant variable, space was to be a pre-existing framework into which the universe was fitted. However, unlike the concept of space, time was regarded as being generated by the nature of the universe. Among contemporary thinkers, Ellis points out that the flow of an elementary particle's time is linked with the expanding universe. In 1969, Misner defined an absolute time Ω by linking its definition with that of the expanding universe $\Omega = -\log v^{\frac{1}{3}}$, where v is the (dimensionless) volume of space, at a given time, in the cosmic universe. (From the thermodynamic viewpoint, it is a unidirectional time which is irreversible as long as the universe is expanding.) Gal-Or proposes to consider a new primary time coordinate whose use resolves a number of paradoxes regarding current concepts of time, time asymmetries and irreversibility. He claims that the master-asymmetry $dv/dt > 0$, (mentioned earlier) stands at the basis of his new theory of irreversibility.

For certain astrophysical reasons, Gal-Or considers it logical and useful to examine the definition, $t'' = v^{\frac{1}{3}} = \left(\frac{1}{\rho}\right)^{\frac{1}{3}}$ where ρ is the density of a "smeared out" cosmic mass energy. This time is also unidirectional insofar as space keeps expanding. However, this definition is significant at early stages of evolution when anisotropic rates of change in v may have some effect. The observed (red-shifted) master asymmetry of present and past epochs is, however, isotropic and hence it is reasonable to consider $t' = r_v$, where r_v is the radius of v. This definition rules out the time-reversal transformation $t' \rightarrow -t'$. According to Gal-Or both t' and t'' suggest that the accessible evolving cosmic system is the most universal and durable system of time measurement that the entire spectrum of 'independent' time symmetries (or irreversibilities) may be unified in the definition of a proper standard time. Since neither -ve volumes nor -ve radii are admissible, the set of defining the origin of irreversibilities in nature reduces to defining primary time. This helps to avoids the difficulty of a pulsating evolution and the master asymmetry is converted into a purely spatial inequality

$$\frac{dv}{dt} = \frac{dv}{dt''} = 3v^{2/3} > 0$$

This inequality is independent of any cosmological model, decelerating or accelerating, expanding or contracting.

He concludes by saying that the origin of irreversibility in nature is not to be found in any of the mathematical formulations of statistical mechanics. In fact, the creation and transfer of irreversibility from large to small systems involves electromagnetic asymmetry, thermal gradients etc. but *most important of all* it involves *gravitation.* Hence he calls his new school of thought as gravitism. We can summarize his views as :

(1) All laws of nature are the results of observation and some of them are strictly reversible.
(2) However, we cannot cause macroscopic systems to run backward by our personal choice.
(3) Quantum Mechanics does not reject causality and determinism.

With regard to the problem of T-violation in Kaonic systems, he thinks that the fundamental question of microscopic irreversibility for a microscopic arrow of time must be investigated within a theory more clearly unified with the rest of macroscopic physics. *Irreversibility on the present smallest scale may not be entirely dissociated from that observed on larger scales.* Gal-Or is so enamoured by his master-asymmetry that he concludes that saying "such an asymmetry may be imprinted on electromagnetic or gravitational waves and may be traced back to the master-asymmetry".

7. *Conclusion*

It has become an almost universal practice to refer to the direction of time or the arrow of time in physics, with the implicit meaning of the direction of flow or movement of the 'now' from the past to the future. It is here that perhaps the most serious misunderstanding of all has arisen, because this dubious psychological concept of 'becoming' has been so frequently muddled with the objective, legitimate physical concept of time asymmetry.

The two directions of time in the following sense—towards the past and towards the future—are known from experience to be fundamentally distinguished physically. Indeed, practically all the phenomena of nature appear to be asymmetric in time. As a result of the universal nature of this asymmetry there has grown the additional misconception that it is a structural property of time itself. A closer inspection reveals that it is more appropriate to regard the asymmetry as a collective property of physical systems in space-time. In this sense, time as such does not possess any intrinsic orientation, movement, direction of arrow. In an empty universe such things do not exist. Contrary to the widespread belief, time asymmetry is only a type of description, relevant to the macroscopic world-view of the physicists, rather than an extra physical ingredient to be added to the laws of mechanics.

The misleading belief that nature imposes a direction of time onto everything (in the active time sense), including individual particles has led many authors to look for the origin of this mysterious "extra ingredient". Some have appealed to the microscopic domain and the subject of quantum mechanics, others to cosmology or a mixture of cosmology and electrodynamics. Others attempts to deny or mutilate the Hamiltonian description, perhaps to the random interaction of the systems with the world outside. The complexity and obscurity of many of these attempts strongly suggests that there is no additional quality to be found.

Running parallel with all these controversies in thermodynamics and statistical mechanics have been the long arguments about the boundary conditions for retarded radiation in electrodynamics. The only convincing attempt to explain the predominance of retarded radiation over advanced, on the basis of a detailed mathematical theory, was that presented by Wheeler and Feynman in 1945. In this so-called "absorber theory" (that we discussed earlier) the thermodynamic properties of the material which eventually absorbs the radiation are used to account for the retarded nature. The theory has been much championed in recent years by some cosmologists, who have replaced the thermodynamic considerations of the absorber with cosmological ones, thereby opening up the fascinating possibility of discriminating between cosmological models on the basis of local observations of retarded radiation.

A large school of thought which believes that cosmology determines the temporal asymmetry of thermodynamics and electrodynamics has grown in the last decade, though opinions differ widely as to the closeness of this connection. In a new classic paper, T. Gold suggested that the expansion of the

universe in some way maintains the thermodynamic disequilibrium of the world, in the sense that in a recontracting universe the direction of thermodynamic and electrodynamic process would reverse. This suggestion has caught the imagination of many physicists and astronomers, even though it runs counter to the pioneering work of Tolman, whose application of thermodynamics to cosmology in the 1930s demonstrated that repeated cycles of expansions and contractions of the cosmos would, in general, only serve to increase the entropy of the cosmological material. In any case, it would be expected on quite general grounds that the cosmological expansion would only be relevant to local thermodynamic processes when the expansion time scale is comparable with the process relaxation times. This was indeed the case in the very early stages of the so-called 'big bang' cosmological models, and it is to this big bang that the search must be directed for an explanation of the present disequilibrium of the universe.

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A peep into man's histority: the lessons for today

AJAI R. SINGH
KEM Hospital, Bombay

SHAKUNTALA A. SINGH
Joshi's College of Arts, Thane

I

'"The reason why I was born a jackal", says a character in the Mahābhārata, "is that I was a counterfeit pundit, rationalist and critic of the Vedas, being devoted to logic and the useless science of reasoning, a proclaimer of logical arguments, a talker in assemblies, a reviler and opposer of priests in arguments about Brahman, an unbeliever, a doubter of all, who thought myself a pundit".' (Radhakrishnan 1983; 484-5, wherein he quotes from the Mahābhārata thus).

No. We shall not be led into justification or rebuttal of the stand-point that this quotation almost tempts us to launch into. For if, reason and logical arguments, coupled with opposition to priest-hood and the attendant dogma is precisely what makes for philosophy for some (and also why the label philosophy to whatever goes on in the name of Indian philosophy is suspect according to them, since it often boils down to the authority of this or that preceptor) it can be equally forcefully argued that what goes on in the name of the defense of reason and conceptual analysis is more hair-splitting argumentation of aimless meanderings whose internal coherence and apparent consistency only camouflage the essential lack of inclination, or ability, in its professors to rise above their own encapsulated world-viewing. If the proper, or rather only, concern of philosophy is to be the analysis of concepts, then it is analysis which is supreme, and concepts *qua* concepts, their worth, their expanse, their intrinsic merit or otherwise become secondary to its domain. Now of course it can serve the purposes of some to view philosophy thus. But it serves *their* purpose, and the purposes of their philosophizing. It is a moot point whether it serves the purpose of philosophy itself.

Reason and its justification have worth only up to the limits of their own expertise. Stretching it beyond this serves the purpose neither of the understanding of concepts nor their analyses. This indeed is what the above quotation can be said to mean when it talks of counterfeit pundits, of rationalists who criticize the Vedas and revile assemblies, unbelievers and doubters who oppose authority and seek thereby, albeit unconsciously, to establish their own. And now if we deem it worthwhile to re-read the above quotation it may not appear as shocking and sacrilageous to our modernist sensibilities as it seemed. For it anticipates the way arguments about Indian philosophy, or for

that matter about Indian thought itself, has bared of its psyche over the last few years to those who must both study and guide it, either on a course of pluralistic heterogeneity or seek to extract a homogeneous substratum and reject all the residue. This is the essence of the Karl Potter-Daya Krishna controversy (Daya Krishna 1984, Karl Potter 1985), for example; but it only reflects a wider difficulty with the systematization of Indian thought that has stumped most reasoned analyses. For it seeks thereby to stretch the limits of reason itself, probably considering it limitless; and unable to see therein the relevance, and irrelevance, of varied viewpoints, whether of our rationalities or our beliefs. And it is not reason, neither is it cognition, nor faith, nor even a judicious amalgam of all these that can serve as a master-tool. Simply because there *is* no master-tool, here as anywhere else. There are only reference-points, intersecting issues, and relevant or irrelevant departures. This need apply to all enterprises of man, whether his forays in the fields of the natural and physical sciences, the social sciences, or the humanities. His philosophy is no less immune to this generalization. Philosophy, rather, should project this cognition in its utmost brilliance, and not straitjacket itself in adventitious barricades of simulated orderliness. Lack of order is *not* necessarily disorder, nor is presence of order a guaranteed protector against disorder. Lack of order is often necessary to the vitality of thought, and when order is only the second name for regimentation of thought, is the sign of a philosopher's personal search for order in the midst of a plethora of anarchical mushroomings that bombard his sensibilities and make him react to them with the weapon he has honed to perfection, his reasoning. But to realise that the weapon is good and efficient only up to a limit is probably the first important landmark in the philosopher's respect for man's cognitive enterprise and genius. And probably also just compensation he must repay to the branch that has offered him so much. It is not a compensation, really. It is only a repayment that must ensure a fresh loan to launch a more robust enterprise of enquiry on.

Suffice it for the present, for this is a topic by itself and indeed much can be said for either side, whatever one's personal inclinations or likings. We only need to keep at the fore-front of our consciousness that we do not hoist our personal needs and likings on to our philosophizing; personal *needs* and *likings*, mind you, not personal cognitions. For cognitions cannot but be hoisted. In fact what are *we* doing but that? And needs have two aspects, one, creative and positive, the second, alienative and negative (Chattopadhyaya 1987; 2). While the former needs to be forwarded, the latter which often impinges on and obstructs its genuine articulation, has to be assiduously guarded against. We realize you may be itching to point out holes in this argument. We shall discuss the further ramifications of this in the last section. Preserve it till then, if preserve it you must.

But, then, let us come back to the quotation with which we started. We Indians are a funny people. We have been big-talkers, often boasters of empty

slogans of a glorious past, of religion and of ethics, ever ready to offer advice, hair-splitters and hypocrites, sychophantic pen-pushers and avaricious god-men. And yet we are also one amongst the few great ancient cultures to have survived, whatever that may mean. There is also no doubt that for most sceptics and India-baiters of yester-years, its attraction is its incredible disparity, its choatic responses, its two-faced outlook to faith and finance whose tangles one finds in every sphere of Indian life. This is also the India to which they come back, again and again, from which they can never totally alienate themselves even if they are never able to identify with it consciously. Perhaps in this lie shades of their racial unconscious.

Reason and criticism have always been looked down upon in the true-bred Indian Brahmanic tradition. It upholds the testimony of one or the other authority, whether the Vedas, dharma (moral order), or the ruler. The reasons for this may not be far to seek. In a cultural mileau that must breed and encourage conformity, sychophancy and loyalty are prized qualities as much as dissent, criticism and the will to differ become dangerous and subversive. Again, when the wish to uphold order, any order (disorder included) against lack of order is accorded primacy, there cannot but result opposition to radical change, and to such questioning of authority as appears to undermine its power. This means to uphold rule, even if despotic, against anarchy, even if promising of reform.

But such reasons and answer-seeking appear correct only when one turns a blind eye to the lessons of History. Their superficiality becomes apparent immediately on any serious discussion of the subject. Let us see how.

II

Indian History

The Vedic period, and even the Upaniṣadic one which followed it, accorded primacy to Vedic scriptures as divine authority. This was challenged little, if at all, even in the philosophical germinations that were the Upaniṣads. It was in the Epic period which arose, amongst other things, as a direct intellectual stir against the unquestioned supremacy of the Vedas that one finds it in its full-blown form. This was represented, on the one hand, by the Materialism of the Cārvākas or the Lokāyatikas, and on the other, by the Pluralistic Realism of the Jainas and the Ethical Idealism of the Early Buddhists. All three rejected the authority of the Vedas and were atheistic in their philosophy. The Cārvākas were rank hedonists (the suśikṣhit or educated Cārvākas were a later development) and were first in breaking the fascination with the past that exemplified the Vedic age. They applied, "a judgement free from the fancies of theology and dictates of authority. When people begin to reflect with freedom from presuppositions and religious superstitions, they easily tend to the materialist belief, though deeper reflection takes them away from it. Materialism is the first answer to how far our unassisted reason helps us

in the difficulties of philosophy" (Radhakrishnan 1983; 285). It is also true that materialism has been the major driving force of most political philosophy in modern times. And for most of its proponents, as for their followers, this is its fundamental attraction. The reason as much for its study, as its interpretation for modernist paradigms, and pedigree linkages to supremacy of reason. One suspects that this is to consciously avoid looking beyond the frontiers of materialist belief for fear of ideological disruption, thinning in the ranks of followers, and dampening of an enthusiasm that is a major factor in keeping up the show, and the self-deception that goes along with it. Of course to remember that our first answers are often only impulses and a means to find easy solutions is to acknowledge the essential impermanence of thought itself; and to reject the simulation of finality that is the major need, and ploy, of such dogmatism as perpetually searches for some semblance of order in a universe of thought characterized fundamentally by unpredictable and chaotic responses. This dogmatism is a characteristic as much of the believer as its staunchest critic; for if belief can be blinding, its criticism can be no less so opinionated. And fanatic espousals are characteristic as much of one as the other.

The Rāmāyaṇa and the Mahābhārata were also products of the Epic period. Unquestioned authority of the so-called moral order was crumbling and needed reiteration by a Rāma and a Kṛṣṇa. Hence, though stories of the Vedic age, they became literary products of the Epic period. That these were attempts to offset the anarchical forays of materialist over-belief becomes obvious when one studies both the timing and the essential thrust of these works.

The Epic period was "... keenly alive to intellectual interest, a period of immense philosophical activity and many sided development ... The people were labouring with the contradictions felt in the things without and the mind within ... (But) with the intellectual fervour and moral seriousness were also found united a lack of mental balance and restraint of passion ... Sorcery and science, scepticism and faith, lisence and asceticism were found commingled. When the surging energies of life assert their rights, it is not unnatural that many yield to unbridled imagination. Despite all this, the very complexity of thought and tendency helped to enlarge life. By its emphasis on the right of free enquiry, the intellectual stir of the age weakened the power of traditional authority and prompted the cause of truth. Doubt was no longer looked upon as dangerous" (Radhakrishnan 1983; 272; parenthesis added). Free enquiry of course weakens the power of traditional authority but does not necessarily prompt the cause of truth. This is especially so when lack of mental balance, of restraint of passion, or a surfeit of unbridled imagination gain hold over the creative capacities of the more fertile minds. The sickly minded and those suffering from reduced vitality and weak nerves the world over in the meanwhile, "try to heal their sickness by either seeking repose and calm, deliverance and nirvāṇa through art, knowledge, morality, or else intoxication, ecstasy, bewilderment and madness". (Radhakrishnan 1983; p. 272).

This was the beginning of the first robust questionings of established dogma in India. Doubt was no longer considered a taboo, enquiry gained ascendency over faith, religion gave way to philosophy. "When attempts are made to smother the intellectual curiosity of people, the mind of man rebels against it, and the inevitable reaction shows itself in an impatience of all formal authority and a wild outbreak of the emotional life long repressed by the discipline of the ceremonial religion ... (But we also know that) when once we allow thought to assert its rights it cannot be confined within limits" (Radhakrishnan, 1983;273; parenthesis added). Of course to suppress curiosity can arouse rebellion as a backlash. Rebellion by its very nature is impatient, rejects formal authority and is sustained by a surging core of emotionality. But the difficulty it causes is by refusing to believe in limits. To obviate this many revolutionary rebellions seek to channellize its raw power by well-worked out theoretical formulations. But all that the more successful amongst them achieve is to strait-jacket an emotion that must only burst its frontiers in the long run. Both the totalitarian aftermath of most such revolutions and their continuous endeavour to maintain conformity and stifle dissent, and the growing disillusionment with goals and methods that most earlier propagators and champions experience, have to be understood in this perspective. For the veil must fall from the eyes sometime or the other, and the resultant ideological disruption becomes the first important step in search of meanings.

When the masses were dissatisfied with the brilliance of the Vedas and the interpretations of the Upaniṣads, it became difficult to continue upholding the old faith. Short-cuts to salvation appeared tempting. "When everybody thinks that life is suffering, at least a doubtful blessing, it is not easy to continue in the old faith". (Radhakrishnan 1983; 274) So many metaphysical fancies and futile speculations were put forward because, "An age stricken with a growing sense of moral weakness is eager to clutch at any spiritual stay" (Radhakrishnan 1983; 274). When an order crumbles prematurely, anarchy of thought and governance is inevitable. Faith not only sustains itself, it sustains the semblance of an order that serves to prop up a crumbling edifice till the time a fresh one can be erected. That it may retard the erection of a fresh one is true only in case where it is blindly used. But the advent of free enquiry heralds the end of its reign. And this end becomes for some synonymous with the end of faith itself. An inability to allow for contradictions to co-exist coupled with a new found joy of conquest results in an annihilatory fervour to abandon all faith. For the tyranny of reason which cannot couple with faith, which cannot accept that their mutual contradiction is as complementary as ostensibly adversarial, matches the tyranny of blind subservience to faith itself. And paradoxically the blindness of conceit, malice and malevolence can be as much a product of unbridled faith as of unbridled enquiry. Idle fantasies and futile speculations are then only measures of the

short-cuts that such a free-thinking must inevitably engage energies in. Equally strong grows the urge to do away with the trammels of unleashed thought. What begins to grow almost imperceptibly in the background, and this is of importance, is an amalgam that combines the robust enquiry of the free-thinker with the steadfastedness of the believer. This lays the background of enquiry that is as resolute as persistent. It lays the background for all significant philosophizing.

Thus resulted what can be considered the three main parts of this intellectual stir in the History of Indian philosophy: (1) the systems of revolt represented by the Cārvākas, Jainism, and Buddhism (600 B.C.); (2) theistic reconstruction in the form of: (i) Bhagavad Gītā (where Kṛṣṇa was represented as the incarnation of Viṣṇu and the eternal Brahman of the Upaniṣads); (ii) the later Upaniṣads (e.g. the Śaivism of the Śvetāśvatara); and (iii) even the Mahāyāna form of Buddhism, where Buddha became an eternal god (500 B.C.); (3) the speculative development of the six systems of Indian thought namely, Sāṁkhya, Yoga, Nyāya, Vaiśeṣika, and the two Mīmāṁsās, starting around 300 B.C. and attaining definiteness around 200 A.D. (Radharkishnan 1983; 276).

A small comment on the first major reaction to the Vedic dogma by the Cārvāka materialists would not be out of place here. We learn from it where uncontrolled thought breaking loose from all restrictions lands us. Rejecting both Vedas and the ideal of God, Heaven and Hell, they considered religion a foolish aberration, a mental disease. According to them natural phenomena were falsely traced to gods and demons. They had to be differentiated from the old religion of custom and magic. Efforts at such improvement could not succeed unless the indifference and superstition of centuries of blind belief got shaken by an explosive force like the Cārvāka ideology. For this it became necessary to declare that the spirit of man was independent. And it became equally important to reject the supremacy of authority, for nothing could be accepted by man which did not appeal to his reason. Thus the strangehold of dogma and obscurantism got loosened. Free enquiry and man's speculative genius flowered. Thus far Cārvāka ideology makes sense, and that probably is its greatest attraction for today's man. But see where further extrapolation of this thinking led them. What was material *alone* was real, they said. Pleasure and pain were the central facts of life. Hence virtue was a delusion and enjoyment the only reality. When the material is given such exclusive significance, personal pleasure and pain become the prime motivators of human endeavour. Considerations of virtue and morals that promote societal good appear imposed upon, a burden to be overthrown as one overthrows the authority that appears to restrict one's quest for speculative genius and/or unbridled material enjoyment. For both have the uncanny ability to go together, if not at the individual level, as a subtle undercurrent that supports such articulation in others, whatever one's professed life-style for public consumption. This life, then, was the end of every thing for the

Cārvākas. They proclaimed the doctrine of uncontrolled energy, of self-assertion and what significantly went with it, reckless disregard for all authority, convention and norms. These become for them hinderances in assertion of one's rights, one's independence. The danger in this reasoning becomes immediately apparent when extended to its logical conclusions. This the Cārvākas did not fail to by saying that it was not right for some one to govern and another obey, since all men were made of the same stuff. The result of such thinking was an adventurous indulgence in passions and reckless disregard for all authority. What started with resolute questioning did not take long to become a head-long dive into individual pleasure-seeking. And not all the Ethical Hedonism of the Sidgwicks and the Utilitarianisms of J.S. Mills has been able to save man from these blind pursuits the world over. This manifests as much in the stranglehold of consumerism and fashion-waves as in territorial hegemony and super-power rivalries, and the arms and other races, for fastness and speed (yes, even the other 'speed'), wherein the mad rush for material welfare must trample underfoot man's humanism itself. This, for all the hue and cry that thinkers of all persuasions, philosophers as well as others, have raised but fought a losing battle over. And, if this fight appears endlessly irresolvable, it also leaves in its wake a desert-track of demoralization, pessimism and a lack of exactly that pleasure that it professes to promote. For "in a stratified, if not fragmented, society, if we are exclusively concerned with our own sectarian or highly private needs, we deny, wittingly or unwittingly, others the means to satisfy their own needs which are not congruent with ours. Fastened to our own needs, we get alienated from and become opposed to others' needs. In the process we harm the social cohesion" (Chattopadhyaya 1987; 2). Confusion, chaos, anarchy, in conviction and action, thus become inevitable.

Western History

Let us turn to Western history. The stranglehold of the Papacy saw an insurgency that was characterized by the Italian Renaissance Movement. The first effect of emancipation from the Church was not to make men think rationally, but to open their minds to every sort of antique nonsense (Russell, 1985; 489). Most "retained such superstitious beliefs as had found support in antiquity. Magic and witchcraft might be wicked, but were not thought impossible. Innocent VIII, in 1484, issued a bull against witchcraft, which led to an appalling persecution of witches in Germany and elsewhere. Astrology was prized especially by free thinkers..." (Russell 1985; 489). The Renaissance was not a popular movement but a movement of a small number of artists, scholars and freethinkers, encouraged by patrons. Their attitude to the Church continued to be ambivalent. Though freethinkers, they "usually received the extreme unction, making peace with the Church when they felt death approaching. Most of them were impressed by the wickedness of contemporary popes, but were nevertheless glad to be employed by them"

(Russell 1985; 488). As the temporal powers of the Popes increased greatly during the Renaissance, the methods utilized to achieve it robbed the papacy of spiritual authority: "the war like policy and immoral life of some of the popes could not be defended from any point of view except that of naked power politics. Alexander VI (1492-1503) devoted his life as Pope to the aggrandizement of himself and his family. He had two sons, the Duke of Gandia and Caesar Borgia, of whom he greatly preferred the former. The Duke, however, was murdered, probably by his brother; the Pope's dynastic ambitions therefore had to be concentrated on Caesar. Together they conquered the Romagna and Ancona, which were intended to form a principality for Caesar.... The wickedness of these two men soon became legendary, and it is difficult to disentangle truth from falsehood as regards the innumerable murders of which they are accused. There can be no doubt, however, that they carried the arts of perfidy further than they had ever been carried before" (Russell 1985; 486).

The moral and political anarchy of Fifteenth Century Italy was appalling and gave rise to the doctrines of Machiavelli. Rejection of the authority of the Church led to the growth of individualism, even to the point of anarchy. Freedom from mental subjugation that dogma involved led to an astonishing display of genius in art and literature, amongst them those of the masters, Leonardo and Michelangelo. For though granted that a stable system is necessary, one cannot but also grant that "every stable system hitherto devised has hampered the development of exceptional artistic or intellectual merit" (Russell 1985; 490). Therefore, that the earliest of those who seek to challenge authority are individuals of such exceptional calibre is unexceptionable. What is exceptionable is what is inevitably involved in swinging to the other extreme. In rejection of the evil influences of a past or one's present, it is often times seen that the ability to sift the legitimate from the illegitimate is either lacking or deliberately unexercised. The pendulum therefore swings inexorably from the nefarious influence of authority to the greed and malevolence of free thought. What is the key to the whole dilemma is temperence and the retention of perspectives; this is often the first, and certainly the most prized, of victims that such messianism seeks for its own propitiation.

The Renaissance man, then, was typified as one who had a versatile intelligence, extraordinary energy, boundless ambition, but was also completely unscrupulous (Potter 1981; 78: he describes Don Rodrigo de Borgia thus; elected Pope in 1492 as Alexander VI, father of Caesar Borgia who was made famous by that other great Renaissance man, Machiavelli, in *The Prince*). As Russell (1985; 489) says, "I cannot think of any crime except the destruction of ancient manuscripts, of which the men of the Renaissance were not frequently guilty". A society encouraging such values could not be stable and thus the Italian Renaissance was brought to an end by the Reformation and Counter-Reformation combined with the subjection of Italy to Spain.

But if the eclipse of the papacy was the negative characteristic of the modern age, there was an important positive one in the increasing authority of Science. Although the former preceded it, and the Italian Renaissance *per se* was not greatly influenced by it, the cause of scientific advance was speeded up in its aftermath. Scientific authority meant recognition of certain principles quite at variance to those of both the Church and the Renaissance. While the authority of the Church was of dogma and to that extent governmental, that of Science was intellectual, requiring co-operation of a large number of individuals believing in objective verification and the experimental method. While Renaissance stressed individualism and encouraged personal flight of fantasy, Science stressed the working of a large number of individuals organized in a single direction. Its tendency was hence against anarchism and also against individualism, since it demanded a well-knit social structure for its propagation. Of course science has not failed to create its own problems since its value system is essentially neutral. Though it puts the power to perform wonders in the hands of man, it does not guide him to adjudicate between them. Thus the man who controls scientific organization is in a position to use its power in whatever way best suits his thinking predilections. This is the reason that philosophies based on its *technique,* not its *essence,* have been power-philosophies and tend to regard everything that is not human as mere raw material for human usage and consumption. Here "ends are no longer considered; only the skilfulness of the process is valued. This also is a form of madness. It is, in our day, the most dangerous form, and the one against which a sane philosophy should provide an antidote" (Russell 1985; 482).

Consider also the Romantic movement which started in the later 18th century and continues probably to the present day. Rousseau can be arguably considered its founder.

Coleridge, Byron, Shelley, and Keats in England, to a lesser extent Victor Hugo in France, and Melville, Thoreau, Emerson and Hawthorne in America are the other important figures. In its essence, it again was a revolt, this time against established ethical and aesthetic standards. But its historical development can be regarded as almost prophetically conveyed by the 'Frankenstein' of Mary Shelley, a literary product of this same age. This Frankenstein's monster was no ordinary monster. He was a gentle being, wanting love and affection, who became horrified by his ugliness. As he surreptitiously helped a poor but virtuous family, he decided to be known and loved by them. But he feared the thought that they would turn from him with disdain and horror at his ugliness. Since this is exactly what happened, he approached Frankenstein to create a female like himself who would love him. On being refused, he set about murdering all those whom Frankenstein loved, till he murdered Frankenstein himself. Even as he saw his mentor's dead body his sentiments remained noble, for he lamented: "Oh, Frankenstein! generous and self-devoted being! What does it avail that I now ask thee to pardon

me? ... When I run over the frightful catalogue of my sins I cannot believe I am the same creature whose thoughts were once filled with sublime and transcendent visions of the beauty and majesty of goodness. But it is even so; the fallen angel becomes a malignant devil" (as quoted in Russell 1985; 656).

Rousseau, for example, was for long periods of his life a vagabond, living on the kindness of others. He repayed their kindness by action of the blackest ingratitude; but in emotion his response was all that the most ardent devotee of sensibility could have wished. Having the tastes of a tramp, he found the restraints of Parisian society irksome. From him the romantics learnt a contempt for the trammels of convention—first in dress and manners, in the minuet and the heroic couplet, then in art and love, and at last over the whole sphere of traditional morals (Russell 1985; 652).

Following the religious wars and the civil wars in England and Germany, the people became conscious of the danger of chaos and the anarchic predilection of indulgence in strong passions. They stressed safety and prudence and the sacrifices necessary for them. Polished manners were practised, intellect valued as a means to subvert fanaticism, restraint of passion became the chief aim of education and the mark of gentlemanly conduct. Newton's orderly cosmos, as though, became the guiding spirit for good governance, for the individual as well as society. But, by the time of Rousseau, people grew tired of safety and desired excitement. The French Revolution and Napolean gave them this in full measure. The aftermath of this was on the one hand the revolt of industrialism represented by philosophical radicals, the free-trade movement, and Marxism. On the other it resulted in the Romantic's revolt, in part reactionary, in part revolutionary. "The romantics did not aim at peace and quiet, but at vigorous and passionate individual life. They had no sympathy with industrialism because it was ugly, because money-grubbing seemed to them unworthy of an immortal soul, and because the growth of modern economic organizations interfered with individual liberty," (Russell 1985; 653). Thus the Romantics liked what was strange, the bizarre, the weird. This preoccupied their imagination. If Darwin praised the industrious earthworm, Blake praised the ferocious tiger. Rousseau's disciples described in detail, "wild torrents, fearful precipices, pathless forests, thunderstorms, tempests at sea, and generally what is useless, destructive and violent.... The temper of the romantics is best studied in fiction. They liked what was strange: ghosts, ancient decayed castles, the last melancholy descendants of once-great families, practitioners of mesmerism and the occult sciences, falling tyrants and levantine pirates ... they felt inspired by what was grand, remote, and terrifying.... Although romantics tended towards Catholicism, there was something incredibly Protestant in the individualism of their outlook, and their permanent successes in moulding customs, opinions, and institutions were almost wholly confined to Protestant countries" (Russell 1985; 654).

THE INEVITABLE CONCLUSIONS

The problem with the Renaissance Movement and the Romanticists (as also the Lokāyata ideology) was not as much their psychology as their standards of values. They admired strong passion, of no matter what kind, and whatever may be their social consequence. The cult of the hero, as developed by Carlyle and Nietzsche, was typical of this philosophy. There was vehement assertion of the right of rebellion in the name of nationalism and of the splendour of war in defence of liberty. The Romantics for example had a contempt for the trammels of convention which contempt they extended over the whole sphere of traditional norms, behaviour and morals. It is not the case that they were without morals. It is rather that their moral judgements were sharp and vehement and based on principles quite different from those that seemed good to their predecessors or their contemporaries.

What happens in such circumstances is that since heroism is worshipped and rebellion praised, and since according to this argument everyone's will can prevail, it leads, as must such school of anarchism, to the tyrannical rule of the successful amongst the heroes. When this occurs, and even while achieving it, they suppress in others precisely that desire for self-assertion which makes them raise to the helm. Thus a paradox is established: liberalism directed against dogma and undue authority itself rises to become a dogma and represses others. The truth of the Hegelian dialectic establishes itself.

The ancient West sought an end to anarchy in the Roman Empire which was a brute fact, not an idea. The Catholic world sought an end to anarchy in the Church, which idea could never be fully realised in fact. Neither of the two solutions were satisfactory since one was not idealized and the other could not be actualized. The Renaissance sought solution to the narrowness of medieval culture and, although not totally rejecting of antiquity, did make people of its times aware that a variety of opinions were possible on almost every subject. The Renaissance favoured individual development, but it also bred instability. In fact this individualism and instability were closely connected. As Russell asks, "How much murder and anarchy are we prepared to endure for the sake of great achievements such as those of the Renaissance? In the past, a great deal; in our own time, much less. No solution to this problem has hitherto been found although increase of social organization is making it continually more important' (Russell 1985; 490).

The appeal of anarchism is but a manifestation of the eternal fight of human nature with human circumstance. By circumstance man may have become gregarious and conventional, but by nature he has remained solitary and hedonistic. Religion, morality, norms and ethos try to restrain the latter and formulate a social structure that sustains itself as it sustains the man. "But the habit of foregoing present satisfaction for the sake of future advantages is irksome, and when passions are aroused the prudent restraints of social behaviour become difficult to endure" (Russell 1985; 656). With its overthrow, a new sense of power and energy is experienced, with a god-like exaltation,

never otherwise in the reach of a laity. The anarchic rebel feels himself not only one with god, like the mystic who experiences similar exaltation, but God himself. "Truth and duty, which represent our subjection to matter and to our neighbours, exist no longer for the man who has become God; for others, truth is what *he* posits, duty what *he* commands. If we could all live solitary and without labour, we could all enjoy this ecstasy of independence; since we cannot, its delights are only available to madmen and dictators" (Russell 1985; 657).

To extrapolate this argument on the social plane: as long as governing authority, whether religious, rational, bureaucratic, scientific, or individualistic and political ideology, whether totalitarian, democratic or communist, does not surrender its predilection to impose social order by force, and continues to represent the will of the powerful rather than the hopes of common man albeit in his name, the goal of a durable and egalitarian socio-political order will remain a mirage. For this, a new philosophy is needed that establishes the values-power equilibrium. Something that combines the idealism of a St. Augustine's City of God with the solidity of a Roman Empire? The power of a blind Prakṛti with the values of a lame Sāṁkhya Puruṣa?

How best to articulate these has become today the challenge of man's histority to his philosophizing.

III

Questions from this brief overview of History pertinent for the present times are:

1. What is the value of the permanency of a system, any system?
2. When such a system is decadent or oppressive, what need be the measures adopted to change it?
3. Is the threat of anarchy inherent in any change?
4. How, if at all, can rebellion be avoided or prevented? To what extent is it justified? What does it anarchise and when can that possibility be subverted? How can it be assimilated?
5. Can the lessons of History be changed, or the cycle must need be repeated?

Now, you would agree all these are bright questions to which justice would be done by a volume each. And many serious thinkers must feel anything less than that incomplete if not exactly frivolous. We must indeed respect this view. But just as a volume is no guarantee of comprehensivity, an article is no excuse for trivialization; it only masks an avoidable pretentiousness. For we are to concentrate, although briefly and in the most generalized manner, on aspects of such questioning as are directly pertinent to the present socio-political atmosphere, and summarizeable for a wider audience that lacks

either the inclination, or the ability, to digest volumes on each. We need not berate this group; they must be taken along, and excited in their own enquiries. It may, further, help them to turn attention to the more comprehensive writers in this answer-seeking. We may, therefore, be pardoned what may appear to some the cryptic nature of some of the comments that follow.

Answering the first question. There need be no permanency about any one system, though a system needs to be permanently present. Often difficulties arise because we mix these two concepts. Let us elaborate upon this a little. Threat to any one system is considered a threat to 'system' as a concept. There is thus a tendency to rally around the existing one, for better or for worse. Since this can warp judgement the only thing that can be said in its favour is that this is legitimate in only two conditions (i) when there genuinely appears no viable alternative; (ii) when one genuinely believes in the ultimate worth of the prevailing system itself, i.e., one feels it can be repaired and remedied. Both these conditions imply that we honestly believe alternative systems are either not viable or do not have such potential; or, are not worth supporting, even given their greatest potential over a period of time. It also means the present system, though messy, is capable of change that can make the best possible of the situation, for now and the future. This utility oriented goal directedness is essentially a matter of approach. When one sees a mansion in need of repairs, we have three alternatives open to us. (Or, rather four, for one may decide not to do anything about it at all.) The first is carry out minor repairs and patchwork that are measures more of our deception and denial rather than genuine concern. The second is undertake essential repairs that prevent further damage and at the same time make the mansion serviceable. Herein come expediency, adhocism and short-term planning. The third is pulling down the structure and rebuilding it, brick by brick. This last is the most attractive on any serious evaluation, though that does not necessarily make it practicable. Most revolutionaries and idealists are fired with some such zeal, which is precisely what dissatisfies them when any of the other types of activities are carried out. But often they can not only not prevent it, they have no viable alternative to offer. For they themselves have to account for two conditions: it is fine to decide that we break down a structure and rebuild it, but where do we stay in the meanwhile? And second, what is the guarantee that the second structure will be better than the first? Now, it is of course possible to say to the first question that temporarily difficulties cannot but be accepted, and to the second that it is only a reflection of one's stagnation and indolence. But these answers are only partially true. We must make provision for the basic social psyche of the group for which a system is planned. If this psyche is predominantly stability-propelled, any threat to its basic structure will be considered a threat to its very existence, a destabilization which will be strongly resisted regardless of its rationale and its justification.

The second alternative is not without its own attraction, if it can be embellished with something more than adhocism. Here we not only carry out essen-

tial repairs without threatening to demolish the building. We even carry out partial demolitions and rebuilding, even extending new wings, all the while cognizant of the anxieties of the stability-propelled. The foundation here is not the first entity to be repaired: it is the last, as the beneficial effects of restructuring sink into the minds. At that stage it could be decided whether it needs the extensive repairs that one was so convinced about earlier. One may then be pleasantly surprised to find the inmates may accept it, even propose it themselves and help carry it out. But if one feels that the foundation itself is defective and needs no repairs, but has to be freshly laid, one may find one's honest convictions challenged at every step, besides turning out to be unfounded in the ultimate analysis. Often both the foundation and the basic skeleton do not need change; in any case they cannot be changed. What can be modified are their reinforcers, their appendages, their muscle tone, their resilience and their dynamism to adjust to changed circumstances. And one may be surprised to find that most basic structures everywhere do not lack the ability as badly as they are made out to. Their inner strength and resilience is often marred or cannot become manifest because of the weaknesses of their functional appendages. Even in the remote possibility that the foundation needs fresh laying, even that may become an acceptable proposition if we go about in the manner described above. Granted there will be some repetition of effort. Granted there will be waste of labour. But the important factor is to arouse people to co-operate. To achieve this some duplication cannot but be tolerated. But to avoid duplication, co-operation cannot be sacrificed. Our action and justification will have to be guided by and circumscribed in this domain. The conservative can then be pardoned his occasionally sticky appearing rationale for supporting the status quo.

Of course, there is a weakness in this agrument. This is regarding our earlier use of the words 'genuinely' and 'honestly', and the possibility that the basic defect cannot be repaired, it must be broken down and reconstructed. Both involve value-judgements which can be as scrupulously followed as unscrupulously flaunted; or exploitatively used by the parties concerned.

And the problem does not end here. Others have their role to play as well, which makes us come to the second question.

No doubt, a decadent or oppressive system needs to undergo a change. The question, however, is how, and whether it is possible at all, working with the means and the material at our disposal. One view would try working from within, cautiously persistent, bringing about change in the system that grows with time, to which both reformer and reformed have time to adjust. The other seeks radical overthrow with replacement by a new order. Both systems have built in advantages and disadvantages. Whilst caution may stifle the speed of change and ultimately curb its vigour, radicalism may speed up confusion and recklessness, which can amount to throwing the baby out with the bath-water. And yet, if one may avoid the frills and fringes of the issue and concentrate on their basics, both appear to seek almost similar goals by diverse methods.

This makes no method more suitable than the other, except for the user's expertise and that of his honest believers; and the strength and limitation of the domain they wish to influence. This of course is applicable only to those earnestly convinced of their capacities and their ultimate goals.

In this, just as their differences of means are important in their differences, similarities of goals are important in their similarities. It is only when such a broad framework is kept in mind that a solution can be worked out that avoids needless heroics or steam. Such a synthesis is only a working arrangement, true, and will appear to break down at times. But the artificial and trumpeted schizms that are measures less of concepts and more of personalities will both be highlighted and avoided. The sides, further, will have an opportunity to complement each other both in their strengths and their weaknesses. The high place that malice, back-biting and bitching have in human affairs and ideologies are more a measure of pique and requittal and our aggressive dogmatism, which will be forced to undergo some measure of sublimation.

Coming to the third question. Any change of course has the inherent threat to anarchize. This is precisely the reason change is resisted by the conservative when it appears thrust upon him, or too fast to adjust to. But it is incorrect to believe he is unamenable to change; what is rather more correct is he is concerned with order. That is also the reason why any drastic change holds eternal attraction for the radical or the romanticist. He may wish, albeit unconsciously, for a 'controlled' anarchy to prevail so that the present order crumbles and hopefully gives place to the new. But the anarchical nature of such change, we know, asserts itself so strongly that every revolution has its price to pay in terms of disorder, strife, chaos and suffering to the masses, besides leading in its own right to the rise of totalitarianism and its breed of sychophants, loyalists and turn-coats. And yet a time comes when even such an anarchy may be welcome when it gets pitted against despotism. All ramifications of this delicate issue are impossible to tackle here. Suffice to say that despots breed anarchy is as true an aphorism as anarchy breeds despots. Man's greatest thrust can be how to break this vicious cycle that History and its perpetuation by man have inflicted on each other.

Regarding the question whether rebellion can be avoided or prevented, the issues must centre around both the propriety of the rebellion and its strength. Rebellion that is ill-directed and that can only be chaotic alone need be totally rejected. No rebellion is wholly so. Hence every prevention or suppression must involve at least two concepts. These are, one, the ideas of favourability and, two, the strength of the ruler against whom the rebellion is directed. There is every need to accept that rebellion will be viewed with disfavour by most rulers, whether strong or weak. Whilst their strength can succeed in putting it down ruthlessly and swiftly, their weakness is equally likely to cause ruthlessness, and a prolonged one at that. The lessons of this should be obvious to those involved in the present political drama in India.

THE JUSTIFICATION OF REBELLION

Can rebellion be justified? As we saw, the issue is not so much of justification. Justification for change and for rebellion can be sought at almost any stage of man's development. In fact its perceived need is the basis of all change in every field of human endeavour. The issue should be more concerned with its timing, its direction and its likely fate. Rebellion, therefore, needs to be timed when it destabilizes in the least, when its direction is reconstructive and its likely fate is a change for the better. This is easier said than done because most rebels believe in destabilization as their major weapon; and reconstruction and change for the better can easily become slogans that camouflage a heightened desire for personal fulfilment and self-aggrandizement. In all these, again, value judgements are involved. But it is possible with some difficulty for most like minded to evolve something in the nature of a broad consensus.

When does rebellion anarchize and at what stage can this be subverted? How can it be assimilated?

These questions are the crux of the issue that has dominated human thought from time immemorial and for which no wholly satisfying answer has ever been worked out. But the directions are there. They exist in most historically significant thought streams, whether the theological, the political, the socio-economic or the philosophical. In general, it may be said that rebellion anarchizes when limits are not set. It is not here a lack of will or spirit that is the issue. That, if anything, is in more than adequate a measure, although most revolution makers would want us to believe otherwise. It is a lack of the will to, or a calculated unwillingness to, lay down realistic limits to one's aspirations. If anarchy is to be subverted, therefore, at least partially this should be possible by a realistic appraisal of one's strength and, more so, of one's shortcomings.

The question of assimilation of rebellion is the most difficult to resolve. But some thought toward this end has occupied the minds of thinkers with the greater profundity, although that does not mean the solutions they have been able to offer are in any measure as practicable as they are profound. The theologists outstrip other thinkers in this regard, perhaps.

As regards the last question of changing the lessons of History for the present and the future, and also whether the cycle of historical lapses need be repeated, let us be clear on one aspect. Man's histority projects him head-long into activity which must only reiterate the importance of its own perpetuation. And yet to this determinism must face up man's ingenuity to strike clear of this cycle. The fight is thus between his instincts and his higher consciousness, between his id and his super-ego, between his impulsivity and his rationality. The fight is between demands of the individual and society, the body and mind, between matter and spirit, between belief and reason, faith and inquiry, dogmatism and scepticism; between the basic shizm of religious subservience and scientific disbelief.

This fight is essentially irresolvable, because neither side can win and neither can be wholly vanquished. In the final analysis, History must repeat itself. All that man can probably do, and that hopefully is not wishing for much, is to blunt its offensive, to make its rapier bearably sharp. To hurt, but not to dismember. To dislodge, but not to disrupt. To chastize, but not to decapitate. All the lessons of human development and expertise at problem solving can be considered effectively directed if it is able to lead itself at least some distance in this direction.

IV

We said earlier, in Section I, that we should not hoist our personal needs and likings on to our philosophizing, while cognitions cannot but be hoisted. But then if you were to question if our cognitions can ever be totally separated from our likings and our needs, we must agree that they cannot. The same question is put somewhat differently when Chattopadhyaya asks at the end of one of his recent articles: "one wonders whether one can actually suspend one's valuation while dealing with 'value-facts' " (Chattopadhyaya 1988; 125). This is in response to a concept of Sociology that says: "the only clear and indubitable sense in which sociology can be value-free is that in dealing with value-facts the sociologist should never suffer his own valuations to intrude into or affect his presentation of the valuation which are registered in the facts themselves" (MacIver and Page 1971; 617). This raises the important philosophical problem of neutralizing the effect of human valuation which are needs and likings based, on valuefacts that need objective articulation free of observer bias, as entities in themselves, and bereft of subjectivities and its defects. This of course is the major concern and driving force of all the rigour that goes into scientific methodology and experimental design; and not without reason is it the major preoccupation of most scientific researchers today.

Be that as it may. We must confess that in what follows we shall give only a partial, and therefore unsatisfactory, answer to the question we posed earlier. But if the answer is partial and unsatisfactory, it is not exactly worthless. To reject a partial answer just because it is not whole is an application of universal principles out of context. It distorts perspectives. A partial answer can be rejected only if it precludes a total one, or after we achieve a more comprehensive one. When we call a partial answer unsatisfactory it is because it must goad us on to develop a more complete one. In fact, this dissatisfaction is precisely the driving force for all thought articulation from time immemorial. It must make us realize that no final answers have ever been possible in any human endeavour. This is what distinguishes cognitions worthy of our philosophizing from those motivated by emotional needs and likings. For, if the former allow us to accept, it is the latter that tempt us to reject answers purely because they are partial. Here is a shining example of such of our likings and needs that need to be divested from our cognitions.

There is also a second point. If someone were to ask after reading this whole communication that what it has essentially involved is precisely an analysis of concepts (which therefore vindicates the position that philosophy is nothing but the analysis of concepts), we must grant there is truth in it. But we must know this again is only a partial truth, and was never really in dispute as one. What we have sought to point out is precisely that it is partial, albeit relevant in its own way. But this relevance is not to the exclusion of others that can be equally relevant. Again, to point out its partial relevance is not to reject its thrust—it is in fact to highlight it moreso. It must seek to establish its legitimate domain and its parameters, and point out those reference points where its intervention remains relevant and where it becomes irrelevant, where it need intersect with other approaches and where preserve itself from, or integrate itself with, others, and where depart from them altogether. In this is the fruition of analysis itself.

So, when we said earlier that our needs and our likings cannot ever be *really* separated from our cognition, what we meant thereby was that it cannot ever be *totally* separated. But one of the most significant aspects of the furtherance of man's thinking is not this realization as much as the attempts to neutralise its unhealthy influence. This is precisely the reason why emotionality is anathema to a reasoned debate, as much as is hair-splitting, which is but a manifestation of this same emotionality albeit more acceptably garbed. This again is precisely the reason for some not only to reject both but swing to the other extreme altogether when, to obviate the fruitlessness of debate, they seek to undermine the worth of debate itself. And in retaliation the defenders of reason not only protest this overthrow but seek to upturn authority's apple-cart. In all such activities, emotional support seeking and need fulfilment is involved doubtless. But it garbs itself in the manner of different cognitions. To unveil this would be no mean endeavour. This is the task we lay for our philosophizing when we seek those moments in our thought processes that stress the reference-points, the intersecting issues and relevant or irrelevant departures we talked of earlier. The moment we concern ourselves thus, we cognize and attempt to avoid the undesirable effects of conation. Though this process is never infallible, it becomes the means to forward the cause of that resolute enquiry which we—that means both the reason and authority baiters—must indeed identify as the crux of what we recognize as our approach. Here the endless controversies over means start sounding like the quibblings of the five blind folded men who identified the elephant according to their own predilections, their needs, and moreso their likings. It is our cognition that can remove the blind fold of such partial viewings. This is probably the endless search and constant refrain of philosophizing down the ages which manifests in its stress on the holistic approach as integral to proper understanding. For partial approaches are most amenable to partialities, and attempts at holism automatically involve the fullest and widest possible expanse of a framework or gestalt that human cognition can grant, or is capable of. In essence, then, to concentrate energies neither on the search for master-tools nor on the furtherance of any of the partial approaches to the exclusion of the other—mark the word exclusion here—becomes the prime cognitive enterprise of a philosopher. This must only spawn such robust enquiry as forwards the goals of the understanding of concepts that best articulate the entire gamut of human thought and activity, as much its processes as its aims, and also their ends. And if it be true that when needs combine with motives they form biases, it is equally true that this cognition itself is the first important step in eschewing biases, their ulteriority, and the consequent cramping effects of all the three—our needs, emotional motivations and our biases. It is when the positive thrusts of our needs are linked to the cognitive apparatus and enterprise of man, that biases are neutralised, a common ground for a dialogue between warring ideologies can be laid, and a polarisation or consensus, whatever, achieved. This of course has the risk of putting some 'professional' philosophers out of employment, but it need not really. It will only weed out aspects of their philosophizing that camouflage as strong-points but in reality only cramp their growth; and such camouflage is not only self-willed, it is often something of which one is blissfully unaware. This bliss can be unvieled by peering into the motivations behind one's own contemplations as well as the motivations of others like-minded. This would lay bare the pathway traversed till date and show such that are appropriate for the future even as one weeds out the thought-leeches and egoistic-parasites that are spin-offs of yester years; and moistens and fertilizes the soil for a fresh, vibrant germination, today and tomorrow. It is the misfortune of today's professionalism that it should have gravitated to become an articulation of needs when in reality it should be an articulation of objectives. If this is a travesty, it is probably only a manifestation of such corruption of thought processes as finds echoes in most endeavours of the man of this age. To overcome this and break out of this vicious cycle will be no mean task, we can assure you. There will be many simperings, many howlings, for sure; and it will be difficult to assuage the laments of some who develop an identity crisis thereby. We anticipate these. But they will as surely abate over a period of time. And when philosophers have exercised their emotions to the full, we hope they settle down to the less glamorous and more painstaking task of actualizing themselves, as their branch.

History's Challenge to Philosophy

In tracing the course of philosophy as a cognitive enterprise of man, we are faced with two challenges. One is the recurrence of themes which seized philosophers of yore, albeit in a modified form. The perennial controversies of Rationalism *v.* Empiricism, Realism *v.* Idealism, Transcendentalism *v.* Positivism recur with astonishing regularity in the pattern of human thought down the ages. One could trace its germination probably to the genesis of enquiry itself, if one had the endurance to delve that deep. From this the obvious con-

clusion drawn is philosophical problems are either ahistorical, asocial, or in any case unrelated to human conditions of the moment; and therefore pontifications or arm-chair generalizations that are really vacuous flights of fantasy, unrealistic if not altogether bogus or scandalous. This is often the criticism of the non-philosopher. To obviate this, some philosophers concern themselves with laying down specific parameters, and limit both the expanse and the goals of their philosophizing in this terrain. They thus achieve a homogeneity and framework better able to withstand the critic's onslaught. This is necessary if not commendable at the *personal* level, as well as to preserve and further the growth of the different *schools* of philosophy. But if this rule is extrapolated to become comprehensive, that is, if it seeks to encompass the *branch* as such, it only amounts to strait-jacketing something that must always burst these frontiers. In fact, this rule would be remembered more by the times it is flouted than by the times it is followed. In so doing, it creates endless controversies, needless slanging encounters and anaemic mushroomings. What is more important it saps at the energies of thought. Sucked thus into a vortex of 'analysis' it becomes more an euphemism for fault-finding and narcissistic self-satisfaction than for genuine discourse.

Let us think of our earlier example here. If we have a mansion to preserve, it is absolutely necessary to lay down its boundary wall. For it serves to demarcate it from the rest, as well as prevent forays of nefarious influences from outside. So far so good. But every mansion builder also knows that it is necessary to provide outlets, which need also serve as inlets, so that the boundary wall itself is not barraged by impatient entry, or exit, seekers. This essentially means we understand that philosophy cannot but keep itself open to most influences from outside, as much as utilize its methods to influence them in turn. Any accent otherwise will only amount to throttling its own neck, and therefore suicide. It may in fact not take this extreme step, but will always entail such dimunition of energies as saps its dynamism and renders its activities that of a lethargic, indolent hypochondriac. For a hypochondriac is constantly preoccupied with the real or imagined deficiencies of his body due to which he is unable to actualize potentialities masked from his consciousness by such preoccupation. Moreover, in this mansion, the boundary wall is a functional unit meant to serve the mansion, not the other way round. It is the mansion which is of prime importance. If concentration of energies on the boundary makes us neglect the affairs of the mansion itself, it must alert the keepers and inhabitors of such an estate to search within themselves and subject their priorities and perspectives to critical scrutiny.

To agree, therefore, that certain thought patterns are historically repetitive is not to deny their historical significance at all. If history has one dimension, that of time, it has the other as well, that of man. And as long as man remains one of the concerns of our search, the time at which what was said or done by him becomes an essential aspect of philosophical enquiry. That this may assert the essential repetitiveness of his thinking predilections itself becomes an important philosophical, and historical, finding.

Secondly, man is not just a product of his history. He is also its producer. As such, he is constantly conscious not only of his individuation but also of his role as a cog in a giant wheel. "Man as the product and the producer of history is to be understood in his social relations with other men. Whatever man produces bears the imprint of his historical being. What prompts man to know is not purely his private matter. His cognitive modification is rooted in some needs, some of which are more personalised in nature and some others more socialised in nature. In fact, man's cognitive enterprises are problem oriented. Every act of cognition, rightly scrutinized, is found to be an attempt to solve some or the other problem. The aids, material and conceptual, needed to solve problems are in most cases borrowed, i.e., social, and not privately invented" (Chattopadhyaya 1987; 8).

Such then is the aid of history to philosophy. For here is the broadest expanse of man's enterprise available for man himself to interpret in its various myriads. And if man is inherently characterized by his consciousness, this is best reflected in his activities. What is man's historicity but that which is realized in his actions? (Barlingay 1983; 235). The human personality itself is not an inert unity, just as the world with man situated in it is not a static totality: "Both are *dialectically* shot through and through by history, by change, i.e., the flux character of reality" (Chattopadhyaya, 1986; 166). Thus all enterprise of man become the legitimate ground for critical scrutiny of the philosopher. He must attempt to unravel the conceptual undercurrents as well as the over-lap in the patternings of man's actions as they are traced down the centuries of his existence. And if to record particular events which have place in time is the job of the historian, to unravel the form this record assumes is the job of the philosopher (Barlingay 1983; 229), or the historian-philosopher. Again, the lessons of the past are germane to his existence today, as well as tomorrow. Though we do grant the traditionalist, or determinist, that the past must need repeat itself or influence man's future in ways not in his control, we need grant it only partial truth claim. Equally true is the enterprise of man as both an individual and social being who must understand his past, that part of it which is unchanging and that amenable to modification, and attempt to modify the present and future in its light. That he may fail in doing so is possible, that he will succeed only partially if at all is equally true. But that he need stop doing so because he will never be able to stem the deterministic propulsion of an inexorable future is not entirely true. In fact, whether the future is inexorable or changeable, man cannot absolve himself of playing his role in either case: that of a believer in its modifiability and/or a believer in its essential impermeability to man's influence. It is this role playing that he can never excuse himself from, which he must pursue with single minded devotion to that which honestly grips his sensibilities, accepting all the while that what grips him is not necessarily the only way to actualize potentialities, for there

can be better or more suitable methods available to others who seek them. He may do this by remembering that man must be fair both to his own experiences, influenced primarily by his own time and place and, at the same time, to others' experiences influenced primarily by the concerned people's times and places, and both histority and futurity are contemporaneously operative within man (Chattopadhyaya 1984; 133-34).

In all these meanderings man cannot also forget that history is the life breath of both his social consciousness and his individual one. To neglect its lessons may arguably suit enterprises of the moment, but it suits neither our social humanness nor its social articulation. For, "History, rightly understood, means social action of human beings and their consequences, intended as well as unintended. To say that philosophers are engaged only in interpreting history is to highlight their passive consumer's role. What is expected of them is to play an active producer's role, recreating history *for* mankind and demolishing the one that is *against* mankind" (Chattopadhyaya 1987; 10). Of course we must appreciate the difficulties involved therein. For they are as much of thrust as of inclinations: the thrust of our philosophizing today lays bare the lack of inclination to forward this to any major degree in the main corpus of the philosophic community. This, in spite of all their professed aims and pompously aired views. What is needed in such views is the ability to back them up with action, with lives lived in such fashion, and a fervour that lights others on the way almost automatically. For this, philosophy itself has to be lived, as much as history has been by those who created it. When this happens, the lessons of philosophy will be taught to the students of history; and the guardians of history will repay the debt they owe to philosophical insight down the ages. If philosophical reflections on history have to bring out the hidden meanings of historical events, it is equally important however they do not transgress their own limits. This they can do by remembering that their interpretations are not "*super* imposed on the details of history. On the contrary, the latter should be allowed to provide character and content to the former" (Chattopadhyaya 1987; 10). To actualize this philosophy must keep an open attitude of give and take with all branches of human interest, whether the sciences, the arts or others with other labels. To achieve this, a position worth consideration is:

Philosophy as pure reflection on Being or what is there or as attempted self-realization hardly yields anything live or concrete. However, I do not deny that because of excessive or obsessive cultural determination it may provide some of us emotional satisfaction of no mean consequence, but in terms of knowledge which has truth-claim and which either grows or decays we are hardly benefited. Unless philosophy is kept engaged in a critical dialogue with specialized sciences or at least with their history, philosophy is likely to fly high on the wings of speculation irrespective of the things and beings, ups and downs, visible underneath. Speculative or transcendental flight of philosophy should not be construed as a creative freedom from its critical engagement with and commitment to what is earthy and human (Chattopadhyaya 1987; 10-11).

Indeed. For, as we have argued elsewhere, the mind allowed to wander free in pursuit of creative freedom may chance upon a spring of nectar but has more chances of being lost in a maze (Singh and Singh 1988a; 196). The intellect needs some framework to work in, it needs a freedom that is restrained as well; and to lay down limitations does not necessarily mean to limit endeavours. And transcendental or analytical concerns, again, cannot be bereft of their commitment to constructiveness, for our concern in genuine creative philosophizing is not necessarily with new but with new constructive ideas. Any accent otherwise results either in pedantry or in chaos, for just as obsession with the old is stifling, that with the new can be equally anarchical (Singh and Singh 1988b; 372).

To obviate both, philosophy must concern itself more carefully with perusing the details of man's history to delineate the details of processes that work within it, and those that are amenable/unamenable to his intervention. One such process we have attempted in Section II when we traced the use and misuse of man's search for freedom and self-determination, for freedom from the restraints of dogma and authority which cramps his creative and individualistic pursuits, and how such endeavours result in self-indulgence, recklessness, anarchy and the existential despair and identity crisis of unharnessed individuation. The difficulties that such breaking loose involves and the problems that it poses for man's search for identity become all the more pressing as personal actualization and growth are the concerns that haunt man's creative predilections more ominously today than at other times. Ominously, because today he has both the ability and the inclination to convert these predilections into catastrophies. For it requires just an urge to convert some despot's mad itch to press some panic button somewhere to convert the seething mass of humanity into a nuclear rubble of corpses. The challenge today to man's histority is to provide the means to stem this head-long foray into devastation, to unseat man from the nuclear stock-pile that in his narcissistic alter-ego ready to ignite in front of his blind-folded eyes, to offer him alternative hedonistic pursuits that satiate his narcissism, and provide a sublimatory channelization to his recklessly driving *thanatos;* and a self-love that only spells anarchy, greed and parochialism which has erected more barricades and bunkers than nature accorded as healthy for man's safety.

It is to the lessons of man's history, then, that the philosopher must direct his critical eye, there apply the critical analytic apparatus he has honed to perfection in his hypochondriacal preoccupations—and we must be thankful to his hypochondriasis at least on this score, for he has experted the use of this instrument thereby—here seek to study man's Being as well as his Nothingness. And then salvage his Being from his Nothingness, and find therein his own deliverance. And liberation. Keeping aside for the time being the endless arguments about whether there is a life hereafter or a mokṣa or not.

There is something to be liberated by man in this very life before he thinks of the next. If nothing else, therein lies his deliverance from his inanities and his inequities, if not from the cycle of birth and rebirth, his karma, or his pre-occupation with or rejection of mokṣa.

This something lies at hand-shaking distance. Our history comes back to us in guises. True. But we must avoid the blind fold. Or disguising that which is best seen uncovered.

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Marxism and social change: some theoretical reflections

LAXMAN KUMAR TRIPATHY
University of Poona, Pune

Section I: Some Conceptual Distinctions

Theories of social change may be distinguished into two types such as (a) partial theories of social change and (b) global theories of social change. A partial theory of social change deals with the transformations of a particular aspect of social life, e.g. changes of the economic institutions, political organisations etc. can be regarded as partial theories of social change. But, on the other hand global theories are theories which deal with the relationship between all the aspects of the social life. Global theories are, therefore, of a totalistic or integrated character. Partial theories may suggest certain hypothesis in the sense of connection between different states of the selected aspects of the social life. For example, theories which postulate that economic development is consequent upon technological inventions can be legitimately regarded as a viable partial theory of social change. But global theories are not hypotheses in this sense for they seek to provide an overall perspective or framework in terms of which changes in different aspects of the society can be related with each other. Hence, we must distinguish between a hypothesis of social change and a theory of social change. This distinction between specific hypothesis and global theories, methodologically, is an important distinction because the question of the validation of a hypothesis is altogether different from the question of the justification of a theory.

Hence, it is, first of all, necessary to distinguish briefly between several meanings of theories as used in social sciences. For this purpose we may follow the pattern of analysis of the meanings of 'Theory' suggested by R.K. Merton in his book *Social theory and Social Structure*.[1] He distinguishes between six meanings of the word 'Theory' which are as follows—(i) by 'theory', in social sciences, very often, what is meant are methodological inquiries, (ii) theory as analysis and classification of social concepts, (iii) theory as post-factum sociological interpretations. Merton holds that these three meanings of theory are not so crucial or important as the next three are. Even, for our present purpose too, the next three meanings are more relevant and they are as follows—(iv) theory as an empirical hypothesis between two or more variables. This meaning of theory is applicable to what we have distinguished as partial theory. Theory, here, means essentially a hypothesis. (v) Theory in the form of hypothetico-deductive system from which testable predictions can be derived. This meaning of 'theory' is essentially similar to Hempel's D—N model of explanation. (vi) But the sixth meaning is more

relevant for our purpose which, according to Merton, stands for a basic conceptual framework within which descriptions and scientific hypotheses can be formulated.

In the present paper we shall formulate an example of a conceptual framework which may be useful for the purpose of examining the theories of social change.

The framework, which we shall be using, is based on the Aristotelian doctrine of four causes. For Aristotle, a full understanding of anything requires that, we consider it from four perspectives or points of view. They are namely, (i) material cause and (ii) formal cause, (iii) efficient cause and (iv) final cause.[2] (The word 'cause' here, is to be understood not in the Humean sense of an antecedent event, but 'cause', here, stands for a 'point of view' or 'perspective'.) The significant point about Aristotle's scheme of four causes is, firstly that a full understanding of anything is possible only if the thing in question is considered from the four points of view and secondly, that these views are to be seen as connected with each other.[3] Hence, the Aristotelian schema is an integrated framework. It is this feature which is helpful for us, for global theories of social change are also integrated.

The four points of view or four causes can be explained in terms of his own example. (i) He illustrates the material cause by the formless bronze from which a sculptor fashions his statue. (ii) The formal cause is the pattern or structure, which is to become embodied in the thing after it is well-fashioned. In the case of the statue it is the plan or the idea of itself as conceived by the sculptor. (iii) The efficient cause is the agent which produces the thing as the effect. The efficient cause of the statue is the chisels, hammer, the will of the agent and other instruments used by the sculptor. (iv) The final cause is the end or the purpose towards which the thing is directed. In the example of sculptoring it is the fully complete and realized statue. In this way, Aristotle explains the four causes by his own example of sculptoring. But, what is important to note is that Aristotle himself extends this schema to more complex, non-physical cases. In Aristotle, there are two such extended applications of the four-cause model, namely, (i) to persuasive arguments in his *Rhetorics* and (ii) to scientific theories in his *Prior-Analytics*. There is, therefore, some basis for extending the Aristotelian causal model not only to material objects or events but also to conceptual constructions such as theories.

Section II: An Overview of Marxist Theory of Change

In the early decades of the present century, when functionalism was the dominant theoretical paradigm, it was usually suggested by some critics of functionalism like Ralph Dahrendorf that functionalism is concerned with social order whereas Marxism is concerned with social change.[4] The presupposition behind such a contrast was that the two fundamental problems which have to be explained are the problems of stability in social life and the problem of transformations in social types. The first one refers to the problem of order and second, to the problem of change. Order and change were regarded as the two fundamental problems of sociology ever since to the time of Augustus Comte. But what was new in the early part of the present century was the idea that these two problems, fundamentally, require different types of theory. However, it was very soon realized that such a contrast is too simplistic, for social order in itself implicitly contains the potentialities of change. As Parson himself clearly recognized, on the other hand, a theory of social change must also explain how the various parts of a social order are related with each other.[5] When we speak of social transformations we are not thinking of random changes. But the idea is that the social system, as a whole, in everyone of its major parts undergoes a transformation. This is what is implied in the distinction between changes in the system and changes of the system. In other words, social change is systematic and hence a theory of social change must also have a conception of the relationships within the system. This means that in its own way, a theory of social change must also explain the structure of the system at any given part of the time. If it is so, order and change cannot be opposed to each other. On the other hand, we require a single general theory which will explain the conditions under which the change comes about. It is, now-a-days clearly recognized that we require such a general theory of change. There is also a way into a further recognition, namely, that both a theory of order and a theory of change must explain social phenomenon at two levels. These two levels are referred to as system integration and social integration. By system integration we mean the objective connections between the various parts of the social system, e.g. how the economic structure is related to the social, political and the cultural parts. On the other hand, social integration refers to the ways by which social actors understand and conceptualize these relationships. Social integration refers to the domain of perceptions, ideas and thought which the individuals have about their social orders. It is also, today, felt that an adequate theory of social change must explain what may be called the objective as well as the subjective aspect of the process. It is from these two points of views that we shall consider the Marxist paradigm of social change.

When we begin to consider Marxist's view on social change we must keep certain preliminary distinctions in mind. Although, for a number of theoretical as well as practical points Marx and Engels are in agreement, yet there seems to be a difference not so much in the content of their statements, but in their approach to the problem. For example, Engels regards a theory of social change as essentially an application of the fundamental principles of dialectics to history. In his terms, 'Historical Materialism' is merely an application of 'Dialectical Materialism', while Marx does use, occasionally, the expression 'Dialectical Materialism'. Yet, for him, studies of the social and historical change do not appear to be merely the application and illustrations of the

dialectics of nature as in Engels. More importantly, in studying historical and social phenomena. Marx sometimes, is concerned with the specific and concrete occurrences and events of particular period and places. For example, in his historical writings such as *The Eighteenth Brumnaire* Marx is mainly concerned with a concrete narrative of how various kinds of changes took place in France. At this level Marx is functioning mainly as a descriptive historian. But, in his more theoretical texts such as *A Contribution to the Critique of Political Economy, The German Ideology* and most importantly in *The Capital,* he is concerned with formulating a theoretical framework for the studies of change. We must, therefore, distinguish between Marx as the theoretician of the social change and Marx as the historian of social change. As we shall see, one of the fundamental problems which one faces in understanding Marx is precisely as to how these two historical and theoretical levels are to be connected with each other. However, for our present purpose it is the theoretical framework which is very important.

Marx presents his theory of social change essentially in *A Contribution to the Critique of Political Economy*[6], and 'The German Ideology'[7]. In both the presentations the fundamental theoretical construct which he uses is that of a mode of production. We may regard the concept of mode of production as the basic theoretical category, for it is in terms of this category that Marx explains both the subjective as well as the objective aspect of order as well as change. Marx, clearly, in is own way, recognizes the objective and the subjective dimensions. The concept of 'Base' is an expression of the objective side of the question whereas 'the super structure' among other things includes the subjective and the ideational elements in the form of certain aspects of consciousness. Hence, the question becomes how the objective social existence and the subjective social consciousness are related to each other. It is to explain this relationship that he intioduces the model of 'Base and Super Structure'. But, this model itself can be understood in three different ways. According to the first way of understanding which may be called the orthodox or deterministic model, the superstructural elements are determined by the modes of production in the sense of being merely the effects of economic factors. According to a second interpretation which we may call 'the organic model' the various elements are related with each other in the form of a certain living totality. But the model of organic unity does not clearly bring out how change occurs within such a unity leading to transformation of types. Accordingly, a third model, which may be called 'the Dialectical model' preserves both the inter-connections as well as the possibility of change of these inter-connections. All these three models seek to explicate Marxist idea of Base and super structure relatively. Hence before we critically examine these three forms of interpretation of the model it may be useful to have a brief overview of the content of his theory.

Marx, in the preface to *A Contribution to the Citique of Political Economy,* has said as follows: "In the social production which men carry on they enter into definite relations that are indispensable and independent of their will; these relations of production correspond to a definite stage of development of their material power of production. The sum total of these relations of production constitutes the economic structure of society—the real foundation on which rise legal and political superstructures and to which correspond definite forms of social consciousness. The mode of production in material life conditions the general character of the social, political and spiritual processes of life. It is not the consciousness of the men that determines their being, but on the contrary, their social being determines their consciousness. At a certain stage of their development, the material forces of production in society come into conflict with the existing relations of production, or what is but a legal expression for the same thing—with the property relations within the framework of which they have operated hitherto. From forms of development of the forces of production these relations turn into their fetters. Then comes the period of social revolution. With the change in the economic foundation the entire immense superstructure is more or less rapidly transformed."[8]

As we remarked earlier this crucial passage can be understood in more than one way. But in the general discussions of Marxism this possibility of alternative interpretations of the same text is not usually recognized. The commentators and the critics alike speak of the base-superstructure model as if it is one model distinct from other possible ones.[9] What I am suggesting is rather different, namely, there are three models of the same text. If so, it may not be proper to describe Marxist discussions of the relationship between base and superstructure as if that discussion itself constitutes the model. The three interpretations I am having in mind are the orthodox deterministic model, the model of organic unity and the model of Dialectical totality. Of the three types of interpretations, I believe, that the last one has certain definite advantages. But I also believe that the dialectical model requires to be formulated in terms of conceptual framework which would bring out its proper strength. This problem of providing a framework for the idea of dialectical totality we shall take up in the next section. But, at present, I would like to, more importantly, suggest that why the earlier two interpretations are inadequate.

The deterministic model has a number of undesirable implications. In most of the critical literature these implications of the dialectical model have been exhaustively treated and hence we need not elaborate much upon this issue. For our purpose, there are three important inadequacies which we may briefly note. It is inadequate philosophically, sociologically and politically. Its philosophical inadequacy consists in two characteristics of the orthodox view, namely, in these terms, we cannot, really, understand the place and significance of conscious activity in bringing about social change. The Marxian term for such conscious revolutionary activity is 'Praxis'. And the first comment that we can make about the orthodox interpretations is that it does not account for the full connotation of Praxis. Secondly, in so far as the

concept of praxis involves or presupposes the notion of freedom the orthodox view cannot be philosophically adequate. The sociological shortcoming of this view is that it isolates the technical and narrows the economic aspect of production. It understands production merely as economic production in a restricted sense. It regards the economic as a factor which determines other factors. For Marx, the economic dimension is not an isolated factor and has to be related with other factors such as political, social etc. The category of economic in Marxism is a totality and it is precisely this idea which is implicit in Marxist concept of political economy. We must, therefore, see the economic dimension as essentially related to the social, political and cultural, whereas the orthodox interpretation, by separating the mode of production from the superstructure, projects an atomistic understanding of the economics. The political inadequacy of the orthodox model is that it marginalizes the political dimension of the revolutionary transformation of the society. For Marx, every revolution has both a social content and a political form. Not merely from the point of view of a theory of political revolutions, but even more generally, within the orthodox interpretation the importance of the political aspect is minimized. For example, it is because of this kind of interpretation that sometimes some orthodox Marxists desperage political values such as democracy, liberty etc., for within the orthodox understanding political culture appears to be merely an ideological phenomenon. Hence, the orthodox view actually betrays the goals of Marxist theory of change itself.

The model of organic unity is comparatively stronger than the first model. The very conception of organic unity consists in the fact that it does not have a unifying framework in terms of which the linkages between various levels can be clearly represented. It is a theoretical inadequacy and because of this at the practical level also, merely the emphasis on unity and organic character may lead to reactionary outcome. In fact, the idea of society as a living organic unity is precisely the fundamental theme of conservatives. Hence, if the first model leads to authoritarianism, the second model leads to conservatism. Therefore, we must have a third way of understanding Marx (i) which would provide us with a unified understanding of the relationship between the economic, social, political and the moral aspects of life; (ii) which would help us to relate practical productive activity with social and political activity; and (iii) which would enable us to see the connections between individual freedom and social justice.

It is this vision which is implicit in Marx's *Theses on Feurbach*[10]. The Marxist idea is that by means of labour men change the circumstances of their lives, but this, in turn, leads to changes of the self in the sense that by means of the productive activity men are capable of enriching their own personality and character. In this text, Marx is linking external change with internal change, whereas in previous philosophical developments the two kinds of change and the activities corresponding to them were kept apart. In this *Ethics* Aristotle distinguishes between the two as Praxis and Poesis.[11]

Poesis is Marx's productive activity involved in changing the world whereas Praxis is the transformation of the self. In Kant too, these two forms of action were kept apart.[12] Change of circumstances would be pragmatic, according to Kant, whereas, moral action is, what he calls, practical. What is new in Marx is the connection between the productive activity and the growth of the self, namely, the idea that men develop themselves by changing the world. It is because of this that the category of production becomes philosophically more important and any adequate understanding of Marx must be able to provide a view for elaborating this insight.

Section III: Marxist Conception of Social Change: An Integrated Perspective

We have already, briefly, introduced the Aristotelian schema of four causes. In the present issue we will propose to use this as a framework for the discussion of some of the dimensions of Marxian theory of social change. But before proceeding to do so I would like to emphasise that the use of the framework which I am attempting now is an interpretative and not a causal one. In Aristotle, the doctrine of four causes is presented as four perspectives or points of views from which anything may be considered. More importantly, these four perspectives are not alternatives rather they are related with each other such that a total understanding requires all the four. It is this unifying and integrating character that proves useful in our attempt to understand the Marxian theory of change in all its aspects. While using this schema we shall observe a certain sequence of discussion, i.e., the order in which we can arrange our discussion is the material cause point of view; (i) efficient cause point of view; (ii) formal cause point of view; and (iii) final cause point of view. In anticipation the material cause perspective would identify the substance or the content which is said to be transformed (i.e., the concept of production), the efficient cause identifies the agency which brings about the transformation (i.e., labour as praxis), the formal cause—the pattern of transformation (i.e., the class struggle) and the final cause—the goal of transformation (i.e., overcoming alienation). In terms of disciplines concerned such a framework would relate the economic, sociological, political and the moral dimensions of social change.

For Marx, productive activity is the very substance of the human life process.[13] For him, by means of production man distinguishes himself from other living beings. Human production, for Marx, is both a natural invariable form as well as a historical variable form. In all periods of human existence man's life depends upon a productive interaction with nature. The necessary interaction between man and nature is historically invariable. Marx calls it as man's metabolism with nature. However, the invariant necessity manifests itself in different periods in different forms. To the historically variable forms of productive activity Marx calls mode of production. This mode of produc-

tion includes both, forces of production and relations of production. It is this (mode of production) which is the fundamental substance of individual as well as social life. The category of forces of production refers to the social aspect. Hence production is not merely an economic category. For Marx, as it were, within the category of production, we have a miniature representation of the totality of social life, for it includes raw material, instruments of production, knowledge and skills, labour activity as well as relationships. It is because the mode of production is an integrated concept that it can be used to explain all aspects of social change. Understood in this way, the Marxist theory is not a reduction to the economic.

The other perspectives which we have mentioned emphasise different themes implicit in the category of modes of production. For example, production involves a conscious practical activity which Marx calls Praxis. For him, Praxis is not merely an adaptive action as when an animal behaviour adapts the organism to the environment. The animal behaviour is not praxis because praxis is not an adaptive but a transformative activity. Men adapt themselves to the nature by means of their productive activity. In modern terms, Praxis is alloplastic rather than autoplastic. Since productive activity or Praxis is a transforming activity, it includes in itself a conscious ending view and conscious control. It is, in this term, in *The Capital*, Marx distinguishes labour as human Praxis from animal activity.[14] Human Praxis or labour may appear in different social formations in different ways. Broadly speaking, we may distinguish between a form of activity which cripples or dehumanises the agents themselves and another form of activity which brings the fulfilment of human nature or human essences. To the first type of activity Marx calls 'alienated labour' and more specifically when he is thinking of capitalism he calls it 'wage slavery'. The perversion of alienated labour is that activity which is the very essence of man which change into a mere means or instruments for biological gratifications like hunger, sex, shelter etc. Praxis proper is an end and not merely means. Whether labour would appear as alienated or fully, depends, therefore, on the patterns in which it is exercised. Since all labour is social or co-operative in the sense that means of productive activity can be exercised only in society. The nature of society determines whether labour would be dehumanizing or not. In all societies there is a class-division of those who own the means of production and those who labour. These social divisions structure the activity in the society as alienated.

However, for our purpose what is important about the level of the division is that if praxis is the efficient cause, then it must operate according to a certain form or pattern. The pattern regulating the nature of the activity takes us to the third point of view, i.e., the formal cause. We may also note the sequence in Marx's argument up to this point. Social transformation depends upon changing the modes of production. Change in the modes of production depends upon change in the nature of labour from the alienating to the emancipatory. But change in the quality of the nature of labour means change

in the patterns in which it is exercised and these patterns are defined by the relationship between the classes. Hence the social change takes the form of class struggle.[15] The formal cause point of view, thus, takes us to the level of Marxist theory of class. It is well-known that Marx defines class in two ways—(i) objectively, in terms of the position in the productive system and (ii) subjectively, in terms of class consciousness. In the former the criterion is whether the class owns or does not own the means of production. Accordingly, the two classes, objectively, are the owners and the workers. In later, when a class becomes aware of its interests and the opposition between these interests and the interests of the other class, this class consciousness transforms the class in itself into the class for itself. Here, what Marx is doing is to introduce the Hegelian notion of self-consciousness into a sociological analysis. This is important for Marx, for only a self-conscious class is capable of revolutionary sruggle. In this way we can see how an element of consciousness is a necessary pre-condition of social change. The form, therefore, is the complex pattern by which a class becomes self-conscious. This is a very complex and long drawn process. It is not merely a situation of confrontation or struggle, but in addition to such a struggle a class becomes class-conscious by developing associations within itself. Membership in a class itself becomes an intrinsic value and hence a class style of life is formed in its own characterized pattern of interaction, communication and feeling. Class-consciousness also requires that there should be an articulation of its own interest and a larger historical perspective, within which it can understand itself. Therefore, for a class to be conscious, the leadership becomes necessary. The relationship between the mass and the leadership is a symbiotic relationship. There can be no revolutionary leadership without the mass support and the mass cannot become an agent of revolutionary change without articulation by the leadership. Each requires the other and because of this dialectics between the mass and its leader a kind of democracy is formed within the class-struggle itself. This revolutionary democracy which is born in the class-struggle, therefore, takes a political form. As Marx has pointed out all revolutions have a social content and a political form. This political form is not merely a confrontation with the state. Beyond that kind of confrontation in the class-struggle itself a new kind of political culture is born which Marx, sometimes, describes as a socialistic democracy. This political culture is regulated by certain basic values and these normative and moral aspects take us to the final cause point of view.

The normative goal of social change, Marx describes, in two different ways, namely, (i) in terms of society and (ii) in terms of individual. The goal of change from the point of view of the society is to overcome alienation by eliminating the causes of alienation and from the point of view of the individual the goal is the fullest development of the potentialities of the individual not as opposed to the development of others, rather as a necessary condition for it. There can be no better formulation than Marx's own, namely 'The free

development of each is the condition of free development of all'.[16] Hence, at the final level, social development or individual development is seen, again, as symbiotic, in the sense that each depends upon the other. The relationship between them becomes a positive feed back in the sense that with every increase in one (i.e., social development) there is a corresponding development in the other (i.e., individual development). But the point to note here is that this process of mutual development is not once and for all an achieved state such that social change would come to an end. On the contrary, for Marx, real social change in the qualitative sense begins only from this point. The previous stages have been merely necessary struggles to attain this position; sometimes Marx describes these earlier stages as 'the realm of necessity' and changes after the revolution as 'the realm of freedom'. In some other context he describes the pre-socialistic phase as 'pre-historic' and social phase as 'the commencement of history proper'. In that sense the Marxian theory of change is an open-ended qualitative transformation of life.

Concluding Remarks

The preceding attempt to place the basic concepts and ideas of Marxism within a philosophical conceptual framework may have two interesting implications. First of all, such a framework may allow us to recognise the inter-connections and inter-relationships between various levels of social change. Secondly and more importantly it may also provide a basis in terms of which sustained comparisons with other theories of change may be made. For example if one were to elaborate the liberal as well as the Gandhian theories of change within such an unifying framework, it may, perhaps, be easier to have some kind of critical judgement regarding the limits of these three models. In this sense, the framework used in this paper may provide a philosophical basis for comparative studies of theories of social change. To the extent that it provides such a basis I believe that philosophical theory may serve an important function for the human sciences.

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The Marxian ethics

SUNIL KUMAR SARKER
Raiganj College, Raiganj

Marxism deals with the problematics of ethics on a relatively lower key, unlike it does with other philosophical categories. The Marxist ethics is relativistic; it vehemently opposes moral absolutism. The reason is that it believes in contradiction and progress, and bears a "scientific attitude". As a social science, Marxism professes that any moment of the social or the "spiritual" sphere is ultimately dependent on the triad (of thesis, antithesis and synthesis) that Marx borrowed from Hegel. Consequently, it is averse to any contradictionless absolutist ethical standard. This contradiction is not to be sought after in the sphere of ideas or concepts, but in the concrete reality which is fundamentally material. The "spiritual" superstructure, including moral principles, stands ultimately upon the material structure or the material reality which is, to be specific, the production relation. It is the mode of production, or rather the production relation, that ultimately determines the shape of the superstructure. Therefore, ethics is rooted in economics, and as economics is a progressive phenomenon, ethics must be historical, relative. This is well expressed by Frolov: "...the sources of moral ideas are the historically developing modes of production, the structures of social life logically replacing one another and progress made by material and spiritual culture of society."[1]

But the economic, historical and relativistic dimensions of ethical standard are not conspicuous in the official versions of the definition of ethics: the definitions seem to be rather non-committal. Take, for instance, Lenin's definition: "Morality serves the purpose of helping human society *rise to a higher level* and rid itself of the exploitation of labour."[2] (italics mine) In what sense a higher level? Again, Marxism defines *morality* "as a system of views and ideas, standards and judgements concerning the regulation of individual behaviour, the co-ordination of actions of individuals with the interests of other people or a certain community, of ways of educating people, of creating and reinforcing certain *moral qualities* and relationships."[3] Though this definition involves the fallacy of *petitio principii*, yet it may serve our purpose. This definition of morality also is not economic, historical or relativistic. Leonid Arkhangelsky and Grigory Kvasov have even incorporated the concept of conscience in their definition of morality: "Morality is that mode of regulating human relations which presupposes a conscious desire for good and rejection of evil, the conscious subordination of behaviour to the dictates of demands of *conscience*, dignity and honour."[4] (italics mine).

Now let us have a look at the main features of Marxian ethics:

1. *Morality is historical:* Marxism assumes that there had been a time when

there was no morality in the true sense of the term among humans, though there were traces of morality there: "Although all these individual mechanisms of moral control, deriving from self-awareness, have been shaped by previous historical experience, they only begin their true development when society enters the age of civilization."[5] Afterwards, we find different forms of morality in the successive historical stages. Thus the moral consciousness of the capitalistic stage of society is different from that of the slave-owning stage of society, and like-wise the moral consciousness of the communistic society will be different from that of the capitalistic society.

2. *Moral consciousness is based on economics:* Marx's relativistic and teleological logic of ethical principles, based on economics, revealed itself as early as in the first quarter of the 19th century, when Prussia passed the Law Against Theft of Timber. Before this, felling of trees was not restricted, but afterwards it was enforced that anybody felling trees within the landed property of another without prior approval, would be deemed to have committed the act of theft. Marx rose against this law and said: "... 'if every violation of property without distinction or more precise determination, is called theft, is not all private property theft? Do I not, beg my private property, deprive another person of this property? Do I not thus destroy his right to property?' ".[6] Later on, Marx developed his concept of moral consciousness basing it on economics. Thus, according to Marxism, "We can say that morality is higher which serves to advance society a step further on the road of material progress and freedom."[7] Marx says that ethics is a bye-product of the production-relation of the economic sphere. This has a direct reference to his class concept of ethics.
3. *Ethics is partisan:* Marx conceived that before the advent of socialism, human society has experienced different production-relations, but in each case there have been two antagonistic classes—the exploiter class and the exploited class. History is simply a narration of the modes of contradiction of these two antagonistic classes. The bourgeoisie, occupying the more advantageous position in the production-relation and thereby exploiting the free labour of the proletariat, shapes its domineering ethical principles to suit its greed. The proletariat, on the other hand, being in despair, shapes its meek ethical values, pursuant of the bourgeois demand. According to Marxism, "In class-divided society, morality is always and necessarily class-morality. It expresses precisely the requirements, the social consciousness and the measure and kind of freedom of the various classes. And when a class is going down, its morality goes down with it, and gives way to a different morality."[8]
4. *Ethics is relative:* As a consequence of the economic determinism of ethics, and of economics being a progressive phenomenon, moral principles can never be absolute; it is doomed to be partisan.

5. *Contradiction in Ethical principles:* Like the economic contradiction between the two antagonistic classes, there is contradiction, too, between the ethical standards of the two antagonistic classes. To the bourgeoisie, for example, the surplus value is a desert for its entrepreneurship, but to the proletariat, it is nothing better than an article of burglery.
6. *The revolutionary aspect of morality:* Marxism believes that morality should never be divorced from politics. It is for this reason that Mikhail Gorbachev has called for an " 'ending of politics' isolation from the general ethical standards of humanity."[9] But, then, not only should politics follow the principles of ethics, but ethics should also follow the revolutionary needs and dictates of the moment. It is for this reason that Nikolai Lenin, in his *Collected Works* (1923), vol. xvii, pp. 321-23, writes thus: "A communist must be prepared to make every sacrifice and, if necessary, even resort to all sorts of schemes and stratagems, employ illegitimate methods, conceal the truth, in order to get into the trade unions, stay there, and conduct the revolutionary work within ... We repudiate all such morality that is taken outside of human class concepts ... We say 'Morality is that which serves to destroy the old exploiting society and to unite all the traitors around the proletariat, which is creating a new Communist society.' "[10]
7. *The Universal elements of morality:* Marx has taught us that morality is causally determined by historical-material conditions, and so it cannot but be only relative. Yet, the Marxists tell us that there are moral principles that transcend time: "The question is often asked whether there exist in class society the moral standards that are essential for any human community. Yes, such standards do exist. There are certain *simple standards of human morality* that take place in the process of the entire historical development of the peoples. They are to protect the community from any excesses that may threaten it (physical abuses, abuses); they demand elementary honesty in everyday intercourse, and so on."[11]
8. *There will be no morality in the human society:* "Communism is the necessary form and dynamic principle of the immediate future but not as such the goal of human development...the form of human society."[12] In the human society there will be no room for the concept of morality. Engels innuendoes to such an idea in his *Anti-Dühring:* "Thou shalt not steal. Does this injunction thereby become an eternal moral injunction? By no means. In a society in which all motives for stealing have been done away with, in which therefore at the very most only lunatics would ever steal, how the preacher of morals would be laughed at who tried solemnly to proclaim the eternal truth: Thou shalt not steal!"[13] We may perhaps add that as evil is, according to Marxism, the product of economic inequalities nursed by bourgeois

material-economic system, at a yet unforeseen time when there will be no economic inequality, the concept of morality, which has a reference to good and evil, will leave this earth. Further, with the abolition of antagonistic classes, morality in the traditional sense of the word will vanish: "When class antagonisms are abolished in socialist and communist society, then morality does become human and not class morality ... Such morality expresses the principles and maxims of free action in 'an association in which the free development of each is the condition for the free development of all.' ... Although human morality does not yet exist, we can perhaps guess at some of its characteristics. It is not dogmatic, but scientific and self-critical ... For it immoral behaviour is simply anti-social behaviour due to weakness and lack of education, and its aim is not to punish but to reform and educate."[14]

9. *Morality in the relation between humans and non-humans:* Generally, ethics is concerned with the ideal relation among humans. But Marxism assumes an indirect moral relation between man and nature. Pyotor Fedoseyev in his *Philosophy and Scientific Cognition* writes: "True morality is not directly the attitude towards nature, as it covers only the field of relation between humans. But in the contemporary relation of society and man to nature all evil inflicted on nature turns evil inflicted on man. Through attitude to nature men relate to each other, making it one of the moral humanistic principle."[15]

Marxism supposes that morality like freedom has evolved owing to the 'activities of definite classes': "What they [the bourgeois philosophers—SKS] did not observe is that freedom is something which develops socially on the basis of the activities of definite classes, and that the same is true of morals."[16] Morality first appeared as a binding force, but in course of time the 'binding force' metamorphosed into an 'ought': "Since men live in society, they necessarily evolve a moral code to regulate their mutual relations and activities in society. This assumes in relation to individuals the appearance of an externally and morally binding force, because of its character of a social regulator of conduct. It assumes the peculiar character of a 'moral force'; we do not have to act rightly, but we 'ought' to do so."[17]

According to Marxism, the healthy material condition for the proper development of moral consciousness is the atmosphere of collectivism and comradeship. This means that the proper development of moral consciousness is not possible in any socio-political system other than that of the communistic society.

Of recent times, the revolutionary means of achieving the ideal moral society, has, perhaps, been dropped. V.V. Denisov writes: "The modern world is in need of new moral imperatives of political activity and a new political philosophy. New political thinking presupposes new moral criteria

and new approaches to world politics, and above all genuine realism and mutual responsibility and equal and general security, and is incompatible with the premise that 'might is right!' "[18] Denisov establishes his point with a quotation from Gorbachev who says that "[Our ideal—SKS] is a world without weapons and violence, a world in which each people freely chooses its path of development, its way of life. This is an expression of the humanism of communist ideology, of its moral values."[19] Thus the Marxists dream of a "new, communist morality".[20]

However, on the theoretical plane, Marxism is not above the following criticisms:

(i) While basing moral principles on the modes of production-relation, Marxism makes a *faux paus* in the direction of *naturalistic fallacy*.

(ii) Alfred G. Meyer rightly says that "a relativistic application of moral laws is perfectly reconcilable with the adoption of an absolutist concept of moral code" (*infra*), because "A program of action, as Kant has shown convincingly, cannot be inferred from description only. The minimum additional premises necessary for such a deduction would be at least one proposition establishing the end desired. And this proposition would not belong to the realm of description; it belongs, in final analysis, to ethics. And, indeed, if we investigate the way in which the Marxists have deduced their programme of action from their description of reality, we inevitably find that, hidden under the claim to have given a scientific basis to morality, there are always some non-empirical propositions concerning the end desired. Even while they debunk the notion of morality, Marx and Engels and their followers are intensely committed to a very definite set of moral values."[21]

(iii) Marxism, like Kantianism, does not speak of moral specifics, but only of abstract moral dictates. In the Marxian moral dictate, morality "is that which serves to destroy the old exploiting society and to unite all the traitors around the proletariat, which is creating a new Communist society." (*supra*) We do not find any "do's" and "don't's". So there is scope of divergent opinions about moral specifics under the general and abstract principles.

(iv) Marxism assumes that the development of moral consciousness is historically correlated with the inevitable economic progression of society in the communistic line. But the history of the USSR of over seven decades does not confirm the inevitability of social-economic progress of that country. There is still in the USSR, as Anthony Burgess, the author of the famous novel *Mechanical China Apple*, says "pop music, drugs, the feeling of being spatially distinct from the older generation."[22] This contradicts the hope of an exclusively proletarian morality free from the evils of bourgeois society.

(v) Marxian ethics is class-ethics or partisan ethics, where the concept of class or exploitation is based principally on the degree of physical labour. In the sphere of means of production, the physical labourers are the exploited class and those who are engaged in the production but do not contribute any physical labour to the production are also part of the exploiting class: "The relation in which classes stand to the means of production determines their role in the social organisation of labour, because classes have different functions in social production. In antagonistic society, some classes manage the production, direct the economy and regulate all social affairs, i.e., engage mainly in mental work. The other classes suffer under the burden of hard compulsory physical labour."[23] Here, those who contribute only mental work, are also, implicitly, the exploiter class. This is, perhaps, not justifiable. Jon Elster, perhaps, is not far from truth when he writes that the "theory of productive forces and relations of production—perhaps the most important part of historical materialism is dead. ... The main objection to the view that property relations rise and fall according to their tendency to promote or hinder the development of the productive forces is that it has no microfoundations. Marx does not explain how the tendency is translated into a social force, sustained by the motivations of individual men."[24]

Further, the term 'class', as defined in Marxism, is very vague. According to Lenin, "Classes are groups of people one of which *can* appropriate the labour of another owing to the different places they occupy in a definite system of social economy."[25] (italic mine) Now, even if a person only *can* exploit but *does not actually do so*, yet he will fall into the category of the exploitors. We think this is not justifiable.

Again, Marxism divides people into two classes, but it cannot identify the water-shade between the two. Further, why not more than two classes, as we now hear of the New Class in the USSR? And, if two antagonistic classes give rise to two different moral standards, we may assume, in the event of greater number of classes, there should be greater number of moral standards, too. Is this conceivable?

(vi) We have seen how Nikolai Lenin illustrated the subordination of morality under the communist revolutionary goal. Cyril Garbett, in his *In An Age of Revolution*, also shows us the complexion of communist morality. He says that according to communism, morality is subservient to the welfare of the State and that even "Lying, treachery, deceit, cruelty may all be used in its interests."[26] We think morality has been debunked here.

(vii) Marxian ethics involves self-contradiction. It does not accept absolutist moral principles, but all the same the Marxists tell us that there are some moral principles or standards that transcend time: "The question is often asked whether there exist in class society the moral standards that are essential for any human community. Yes such standards do exist." (*supra*) How is this possible?

(viii) Marxian ethics is causally connected with the mode of production-relation. But this can never explain the category of the "ought" in ethics.

(ix) V.D. Zotov writes that in the pre-class antagonistic society morality was of a higher order, and that "with the appearance of a class-antagonistic society morals lost their initial collectivist foundation. Private property relations undermined such rules of behaviour as honesty, candour, and selflessness."[27] We can, therefore, say that economic-historical linear progression is not always correlated with the unfolding of moral consciousness, as claimed by Marxism.

(x) Marxism says that communism is only the need of the immediate future, and in the ultimate stage of social-economic development and progression, the *Human Society* will emerge where the concept of morality will completely evaporate. Living in a world-social condition in which we are, we can take it only for a happy dream.

To conclude, Marxism has the credit of adding the concept of "movement" to the already existing theory of the epicureans. But we cannot accept the Marxian ethic or for that matter Marxism as a "correct method"[28] until and unless the questions raised above are answered.

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Is knowledge socially determined?: a critique*

MAHASWETA CHAUDHURY
University of Calcutta, Calcutta

Introduction

There is an age-long tension between objectivism/objective theory of knowledge and the so-called sociology of knowledge regarding the nature and validity of knowledge. Karl Popper is a traditional proponent of the former and crying his voice hoarse for a long time to assert that truth and validity of knowledge is independent of any extra-logical condition such as socio-economic, religious or cultural factors.

Parallel to this, there is a growing concern among sociologists and philosophers to take social conditions also into account for a full explanation of knowledge. K. Mannheim is a traditional champion of the theory of social determination of knowledge.

Popper and Objective Knowledge

Knowledge, i.e., scientific knowledge is objective in Popper's view in the sense that all epistemic items such as problems, theories (which are conjectures) and tentative solutions are items that transcend the subject as well as all material conditions to be housed in a realm—the Third World which is objective. This realm, however, is not immutable as Plato's Idea; there are constant changes following changes in our thought. Knowledge, though objective, is nevertheless fallible, to be corrected towards acheiving its ultimate goal, namely, truth. This goal, however, is never achieved but approximated in degrees. Truth acts rather like a regulative ideal.

Popper's Account and Objections to Sociology of Knowledge

In Popper's view 'scientific objectivity' is based to some extent on social institutions, and not on the 'mental or psychological attitude of the individual scientist, on his training, care and detachment.' 'This doctrine' Popper says, 'developed in detail by the so-called "sociology of knowledge, entirely overlooks the social or institutional character of scientific knowledge because it is based on the naive view that objectivity depends on the psychology of the individual scientist' ... '*What the "sociologists of knowledge" overlook is just the sociology of knowledge*—the social or public character of science'.[1]

In Popper's account sociology of knowledge 'overlooks the fact that it is the public character of science and of its institutions which imposes a mental

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discipline upon the individual scientist and which preserves the objectivity of science and its tradition of critically discussing new ideas'.[2] Everybody will not share Popper's euphoria about scientific training and its intellectual impact on scientists. On the contrary, there are a good many people who think (like Feyeraband) that scientific reason is no better than ordinary reason and scientists rather follow the dictates of a disciplinary matrix (as Kuhn thinks) than the 'tradition of critically discussing new ideas' which preserves the 'objectivity of science'.

Popper regards language as a social institution and so believes that it can be 'socially controlled'.[3] Science, he thinks, is more than 'social institution' —because it needs free competition of thought in addition to the social aspect. Mannheim (& Scheler) developed a theory of the mind—determination of knowledge—to stall the subjectivist approach.

On this view scientific thought—especially thought on social and political matters does not proceed in a vacuum, but in a socially conditioned atmosphere. The social habitat of the thinker determines a whole system of opinions and theories which appear to him as unquestionably true or self-evident. Each of these different socially determined systems of assumptions is called 'total ideology' (to Mannheim). To Marx, class-interest is the principal social determinant.

Popper describes 'the sociology of knowledge' as the Hegelian version of Kant's theory of knowledge,[4] presumably because it is 'constructionist' like that of Kant and unlike the 'passivist' account of the empiricists.

How to avoid the plurality of views? The older sociologists of knowledge are aware of the problem and suggests that the 'freely poised intelligence of an intelligentsia'[5] which is only loosely anchored in a social tradition may be able to avoid the pitfalls of the total ideologies. This can be achieved and objectivity attained through analysis of the various hidden ideologies and their anchorage in the unconscious. The way to true knowledge appears to rest on the unveiling of these unconscious assumptions. This method is ridiculed by Popper as 'socio-therapy' after Freud's celebrated 'psycho-therapy'. Notice that Mannheim is equally concerned about salvaging objectivity of knowledge as any other, and trying to find the method of socio-analysis which only can result into freeing one from all social complexes to attain the highest synthesis of objective knowledge. This is no concession to the relativists. In fact, he emphatically denied that he is making *any* to relativism (in *Ideology and Utopia*). The modern sociologists of knowledge however do not find the plurality of frameworks to be an obstacle to knowledge. They consider the possibility as unavoidable and therefore rather give up the concept of objectivity (and truth) as redundant and seek shelter in various degrees of relativism. Both the former and the latter kind however tend to destroy the basis of rational discussion (or evaluation of a theory) by referring to a class-bias or a paradigmatic difference. Sometimes it goes far enough to deny even translatibility of one into the other. But that is a different story.

To come back to Popper and his objections to social determination of knowledge. The most significant point he makes about such account is his doubt about the possibility of eradicating prejudice, class-bias or individual one. He argues adequately that not only in social sciences, but also in natural sciences, it is not so easy to get rid of one's prejudice or 'favourite theory'. Objectivity of science rests not upon the individual scientist's impartial outlook, but upon the intersubjective or social aspect of science.

Two Objections to Sociology of Science

1. It is self-destructive, in its palpable failure in self-analysis. The recent theories of sociology of knowledge are trying to avoid it by introducing the Reflexivity condition.
2. The more important objection: they overlook the 'social aspects of knowledge'. 'It looks upon science or knowledge as a process in the mind or 'consciousness' of the individual scientist's impartiality, then not only social sciences, but natural sciences also can never achieve objectivity for there is no doubt that we all are suffering from our own system of prejudices or theories. Scientific objectivity rests somewhere else—in the social aspect of scientific method, which can be called intersubjectivity of scientific method. Ironically, those who call themselves sociologists of knowledge neglect the social aspect of science. Two things constitute 'publicity of scientific method':

(i) Something approaching free-criticism 'Friendly-hostile co-operation/ criticism'.
(ii) Scientists try to avoid talk cross-purpose, they speak the same language, of the same experience, i.e., observation and experiments (not religious or emotional experience that cannot be shared).

Popper mentions some thought experiments to show that accidental hitting at truth is never considered as knowledge because it lacks the use of scientific method. The latter alone lends credibility to any hypothesis. Examples of the 'Clairvoyant' and R. Crusoe.[7]

Both are examples of 'revealed science' because these lack the social or public character of scientific method. '... the individual scientist's impartiality is, so far as it exists, not the source but rather the result of this socially or institutionally organized objectivity of science'.[8] Any assumption can in principle be criticised (cf. Einstein's challenge to the concept of space-time). And that anybody may do so constitutes scientific objectivity.

Knowledge as Social Construction

As I said before, according to the theory of social determination, all our beliefs and opinion, ideas and thought are conditioned by the particular time and society we belong to, science being no exception. And as there are many types of social conditions, there is not a single standard or norm to judge the value

of any idea, action or belief. There is no universal criterion for truth and validity. The essence of relativism is succintly put by D. Bloor: 'The objectivity of knowledge resides in its being the set of accepted beliefs of a social group ... The authority of truth is the authority of society.' (in 'Popper's mystification of objective knowledge', *Science studies* no. 76, January 1974).

In other words, the relativists believe that what makes it true that P is the fact that a socially dominant group asserts that P, whereas the objectivist argues that what makes it true that P is simply P, or more explicitly: a proposition is true if it corresponds to the facts.

It is difficult to disagree with the objectivist contention that there is more to truth than the belief of the majority of a social group. 'A fundamental distinction must be drawn between the way the world is and what we say about it, even if we all happen to agree. We could all be wrong.' (R. Trigg, *Reason and Commitment*, Cambridge 1973). On the other hand the relativists claim that if truth (and validity) is beyond the reach of social conditions, then truth-criteria might approach dogma—sounds attractive. The question is if the putative dilemma whether knowledge is objective or socially constructed—is genuine. We shall try to do that by presenting an extremely sociologistic account of knowledge and objectivity.

Bloor's Extreme Relativism and Knowledge as Social Phenomenon

Bloor suggests (in 'Popper's ...') that all so-called objective entities such as theories, problems and equations can be reduced to the inter-subjective social domain. Popper's 'Third World' of ideas in the objective sense can be simply regarded as the social world. The contrast between the subjective and objective is thus identified with that between the individual and social. Objective knowledge for example 'refers to the standards, conventions, accepted procedures, paradigmatic results and models to which some groups subscribe' (in 'Popper's ...'). A straightforward identification of Popper's 'Third World' with the standards of a social group is not possible as Bloor thinks because Bloor does not appear to allow for the fact that prejudices and distortion are as important in a social group as they are for an individual (remember Bacon's Idols of the Tribe?). Moreover Bloor equates theories with norms, but overlooks that both can be objective. Until he gives a satisfactory reply why norms cannot be treated as true or false, the identification of norms with theories is no argument against objective knowledge (or the existence of Popper's Third World).

Of course the sociologists of knowledge might say to this (I am not sure whether an extreme relativist like Bloor would): sociality is neither truth-guaranteeing nor truth-destroying but only a truth-limiting phenomenon. The individual is the most likely source of error and society is the most reliable source of truth because what knowledge will be sought in a society depends on the axiological system that reigns in that society (or paradigm if you like).

I admit at this stage that the decisions and conventions of communities have and ought to have a large share in determining what is to count as knowledge, what is to be taken as valid; but that is only because we think they are less likely to be in error than an ordinary person. In Bloor's account, criticism will be impossible (although he claims that it is)—because the authority will impose 'what is true' (like 'what is good') to dissident minorities. Criticism presupposes not only that individuals may err, but social consensus can also be in error. Majority consensus does not prove that it is right—either in knowledge or in moral questions. Bloor has made an attempt to reduce statements about constituents of Popper's Third World—namely theories, inference propositions to statements about norms and social processes. But that does not help.

The difficulty with such reduction lies in the shifting of the problem to a different level for the incompatibility between the supposed objectivity (validity truth-falsity etc.) of scientific theories and the supposed conventionality of systems of norms is a major stumbling block for such reduction. Bloor makes not only our rationally accepted beliefs but also rationality itself some culture-specific phenomena. But one can argue to that in the following way: theories are indeed systems of norms, but what this identification reveals is that norms are objective, that is norms are evaluated, criticised and overthrown in an attempt to find the truth. It is because any system of norms is theory-like that it seems plausible to consider reducing theories *per se* to norms. In this way of reduction rationality and objectivity are precisely that which reappear as the basis for criticism and change of norms. Science or knowledge is indeed important to be understood as a social process, but it is likewise important to recognise it as an intellectual or logical process. Sociologists of knowledge, in their pursuit to seek extra-logical preconditions for the origin of beliefs oversee the logical merit of them.

Proposition, Propositional Act and Knowledge

The theory of objective knowledge is often misunderstood as one which posits objects as being 'out there' as coercive, part of external reality. But to say that would be a gross mistake. Popper following (Kant and) a Fregean line subscribes to constructivist epistemology. In this regard he is nearer to the sociologists of knowledge than the 'passivist' epistemology of the empiricists. One can recall his anti-essentialist arguments in this context. However the sociologists of knowledge do not realise how far a constructivist theory of knowledge can go along with them without conceding to relativism of any kind. The institutional character of language[9] is not underrated by Popper or Frege by any means. And it is also recognised that whatever is institutional can be socially determined. Language as the main vehicle of thought also cannot avoid social conditioning. My perception of the issue would be clear if we distinguish between 'proposition' and a 'propositional act' as Alonzo Church

proposed and with this distinction in view, the apparent dichotomy can be given a new and clear perspective.

Frege who claims to speak for an objectivist epistemology is perhaps the first one to make a distinction between what is asserted, believed, known, thought or stated, and the act or state of believing, asserting, knowing, thinking, or stating. This distinction is significant for a sociological enquiry of knowledge because as Searle puts it, "The conditions for the truth of the proposition are not the same as the conditions for the performance of the speech act of asserting that proposition."[10] Church also made the distinction between proposition (the meaning of a sentence) and propositional act such as a belief, and from the way belief sentences (such as I believe that 'he is here') are translated argues that proposition rather than a sentence is the object of our belief or other propositional act. We can also recall in this connection the distinction between 'constative' and 'performative' utterances proposed by J.L. Austin—the 'constative' utterances can only be called true or false but the 'performative' ones are the performance of some act and not the report of such performance. Propositions are, Frege also says (in his attempt to establish the objectivity of the empirical and formal sciences)—true or false, sentences are true or false only in the derivative sense of expression of a true or false proposition. A true proposition is a fact. Speech acts are different from a proposition, in fact all meaningful actions are performed with certain intentions in mind and in accordance with certain conventions. And so the performance of speech acts will surely be influenced by the social situations in which the speakers find themselves. So what makes it appropriate to assert that grass is green might be a question from someone about that particular colour, but that should be distinguished from what makes it true that grass is green. What makes it true that grass is green is simply grass' being green or the fact that grass is green. And that is a fact independently of whatever may be said or thought or felt about it. The implication of this for the sociologists of knowledge is that speech acts, the intentions and conventions around them and their social consequences are proper and important objects of sociological inquiry, whereas propositions and the truths of propositions are not amenable to sociological investigations. It would be wrong to claim that a speech act (or any other action) was true in the sense of corresponding to facts, equally wrong is the supposition that the truth of a proposition could be socially determined or conditioned in any way.

It is clear now that the questions about the truth or falsity of proposition and logical relations among propositions can and should be pursued quite independently of questions about the causes and effects of the performance of speech acts. The dilemma—either knowledge is objectively true and so escapes the social influences or it is socially conditioned and therefore is not true—appears now to be a false dilemma. Even if one accepts that social conditions can influence speech acts, that does not lead to rejection of objective knowledge. But even now a hardcore sociologist of knowledge might further

argue that knowledge is not merely socially conditioned but socially constructed. That knowledge is a social construction is a claim about propositions to the effect that they contain concepts which do not reflect the structure of external reality, but only our interests and purpose. All facts are constructions. It is important to note that Popper accepts much of this claim—no facts are 'hard facts' to him, all facts are loaded, but not with our individual (or class) interests and purposes, but with our theories. But here we must make a fine distinction between 'constructed' and 'theory laden'. That we can know of bipeds and quadrupeds or that gold is valuable—depend on certain social conditions, but that we can do so has something to do with their nature. Here we must make a distinction between 'brute fact' and 'institutional fact'. 'Mary is a human being' states a brute fact whereas 'Mary is a philosophy undergraduate' states an institutional fact. But it is not the case that all facts are either entirely brute or entirely institutional, brute fact and institutional fact interact in such a way that it is an empirical question how much emphasis is given in any particular assertion. Once we know an institutional fact about something or somebody—that entails our knowledge of that person or that thing not only institutionally, but also as such. Example: 'wife' entails 'female', 'human being', 'biped' etc. Given any sufficiently determinate standard or norm, it will be an objective issue, a matter of truth and falsity how well a particular object will measure up to it. Moreover although norms are (arbitrary) conventional, these are also attempts to approximate truth and are thus evaluated and adjusted, according to available knowledge of the time. And even if we know an object as an institutional fact—that entails our knowledge of it and in addition knowledge about the object as a 'brute fact'. For example, our knowledge of the object, say gold, may be partly institutional, dependent upon several social conditions, but 'this is gold' or 'gold is valuable' is not only a statement about a socio-economic system, but also about a brute fact possessing certain properties, in this case an object possessing the atomic number 79. Those who think knowledge is socially constructed oversee this. Knowledge that X measures up to the standard s only entails that someone in authority says so. But X measures up to the standard s does not entail that X possesses properties A_1 ... A_n, for those in authority may make a mistake, the standard may be incorrect, available knowledge may not be adequate and so on.

If it is realised that in pronouncing a judgement, an authority (or the whole society if you say so) is not asserting a proposition (claiming truth-falsity, validity etc.) but only a speech act, then the objective theory of knowledge would not have any quarrel with sociology of knowledge. But that is not to be. The sociologists of knowledge—at least some militant ones like D. Bloor have gone as far as to banish truth and validity from the realm of knowledge and attempted to reduce Popper's Third World to a social phenomenon. To avoid subjectivism the sociologists of knowledge have opted for a more problematic choice. Progress of knowledge and its fallibility can be better

explained if we can avoid the good old Baconian Idols Of the Tribe. Cultural or anthropological relativism, even if true, says only that there are several standards of judging social phenomena. It does not entail that we cannot evaluate the different standards. And relativism even if true in social phenomena does not have an epistemological corollary.

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1. Karl Popper, *Poverty of Historicism*, p. 155.
2. *Ibid.*, p. 156.
3. See *op. cit.*, pp. 154-55.
4. K. Popper, *Open Society and its Enemies*, II, chap. 23, p. 215.
5. K. Popper, *ibid.*, and also *Poverty of Historicism.*
6. K. Popper, *Open Society and its Enemies*, II, chap. 23.
7. *Ibid.*, pp. 218-19. These two examples are given to show that although items of so-called knowledge are produced by revelation in the first example, and by lone effort in the latter—These are not cases of knowledge as both lack scientific method.
8. *Op. cit.*, chap. 23, p. 208.
9. K. Popper, *Poverty of Historicism*, pp. 154-55.
10. J.R. Searle, 'Assertions and Aberrations', *British Analytical Philosophy*, B.A.O. Williams and A.C. Montefiore (eds.), London, 1966, p. 53.

Social reality and moral order

S.S. BARLINGAY
Poona University, Pune

1. DHARMA

The Philosophy and philosophical problems arose for Indians while considering the mutual relation between man and the universe and if Indians have considered what the reality was like, it was also because of the fact that they wanted to know how the nature of reality affected the nature of man. The problems which concern this kind of relation between the nature and man were classified by them under *dharma*. So, the primary problems before Indian thinkers to whatever school of thought they belonged, was what the *dharma* was. The investigation about Brahman was undertaken only as the limitation of this problem. It was thought that man's nature and his actions, ideals, etc., were linked with the nature of Brahman or reality as it actually was. It is not possible here to undertake the discussion about the correlations of Brahman and man at length. Nor is it possible to explain at full length the concepts like Brahman and *dharma*. I can only state a few questions about *dharma* as they become relevant in the context of man.

By the word *dharma*, the Indian thinkers did not mean what is connected by the English word, 'religion'. The word *dharma* was used in ancient India in a number of ways. It, for example, means (i) a characteristic (e.g. colour or fragrance is a characteristic of flower or to die is a characteristic of man, (ii) justice, (iii) law, (iv) duty and (v) human end. But of these various uses the use of *dharma* as human end or human objective is relevant here. It should be pointed out, that '*dharma*' used in this sense signified, two important concepts, (i) the concept of *abhyudaya* or prosperity and (ii) *niḥśreyas* or what is sometimes translated as 'Ultimate end'. I may, point out that the word *niḥśreyas* does not mean this. The ultimate object of *niḥśreyas* is to point out or suggest in the context of man and the universe, the limitations of man's power, to bring to his notice, that man can go up to a point and beyond it man cannot go. He has to realise that at a certain point he has to accept his own limitations and supremacy of Nature. It is the realizations that he is not different from nature. In one sense of the term, this realization is not 'getting, achieving or acquiring' in the sense one gets or acquires one's property or money or achieves distinctions. This acquiring or achievement is merely knowing one's limitations. It is knowing that one's independent personality cannot exist as independent of the world all the time. So I do not think that the concept of *niḥśreyas* can be really compared with end, although traditionally, it is being compared. I feel that concepts like progress, end or achievement are in fact concerned with *abhyudaya* or prosperity. In the following paper therefore, it will be necessary to consider the presuppositions of the concept of *abhyudaya*.

Perhaps the commonsense religion also is connected with the concept of *abhyudaya*. First although in the concept of prosperity is included 'my prosperity' still, the concept of my prosperity cannot be meaningfully applied unless we also hold that I exist in some independent world and that there are other men like me in this world. The concept of prosperity indicates or suggests a kind of communication between me and other men, and me and other things in the world. It is concerned with the relation between me, the world and other men. Recognition of other men and other things in the world perhaps leads, in its extreme form, to the recognition of other person like God and the other world like Heaven. But although those who insisted on *abhyudaya* conecpt also talked of the concepts of Heaven and God, the concept of *abhyudaya* was primarily used (and should be used) only in the context of this world and men in this world. Let us then say that that the concept becomes meaningful in the recognition of the existence of other men and independent world. It is through the use of these concepts that the social institutions come into existence. It is only after recognising that there are other men and the world, that one may, for example, think of dominating over them or, if necessary, take their co-operation for the mutual or everybody's advantage and happiness. The *mantras* like *sahanāvavatu* or *'sarvepisukhinaḥ santu'* have their origin in *abhyudaya* concept only. Primarily the concern of *abhyudaya* is, of course, with my prosperity. But if such a prosperity requires the prosperity of others, it is also concerned with the prosperity of others. If this prosperity requires the creation of a state or a government, it will naturally be concerned with state or government. Man is naturally concerned with everything such as social order, government, literature and arts which serve as means for the accomplishment of my progress in its fuller aspect. Had there been only one man in the world or had there not been an independent world, the concept of *abhyudaya* would not have been meaningful.

In order for the concept, to be meaningful, we require at least two men. But when there are two men, there can either be co-operation between them or a conflict between them. It is in this dialectic of co-operation and conflict, that the concept of *abhyudaya* evolves. It is in this dialectic that a problem arises whether one has an obligation towards others. The question can be restated in the following way:

(i) What must I do for the other, and

(ii) What must I expect from the other.

That is, what must the others do for me, but just as I should do something for the other or the other should do something for me, I might have to do something for myself. What I should do for myself is perhaps the basic question. The question what I do for my happiness follows from it. In my opinion, *puruṣārthas* like *dharma*, *artha* and *kāma* are concerned with these three specific kinds of questions. Of course, these questions would not arise unless we also believe or presuppose in the world which is independent of man's knowing. And this is what is Realism or a realist hypothesis.

But having presupposed such an objective world, which is not dependent for its existence on my knowing, I also construct another world—the human world—on the basement of the first world by my *ability*, *intellect* and *interest*. Unless such a world is created by me and *the other individuals it* would not be possible to communicate with one another. Human language, itself is an example of such a world constructed by man. But man's creations of tables, chairs and carpets or houses, lamps, radio and television sets are all instances of human constructions only. One can easily see that all these things are not only the constructions of some matter but are also constructions of sounds which take the form of words and also give meaningful forms to the matter. If man is eliminated from the world these different structures will be merely structures. Human language is indicative of their different functions and the human world is essentially determined by these functions. It is because of the differences in functions that the structures become useful to man. It is to accomplish the human functions that man creates them. The differences between a house, a table, a carpet and a lamp, are all due to human beings. Man's progress, prosperity and communication are all concerned with creating such a variety or difference. It is *prapañcha*. As Bhartṛhari has said the *Brahma* in the form of sound takes the form of meaning. The process of the world starts as soon the sounds are turned into meaning. It is on account of language that man is able to create a variety in this world. From this point of view although the world is independent of man, it is also dependent on him. It is independent because it is constructed for human use; the forms it takes are meaningful only in the context of man. It must, therefore, be remembered that the propositions 'the world is real, and in independent of man', and 'the world is man's creation', are not inconsistent with each other. In almost every variety of Indian philosophy, we find these two concepts of the world, the cosmocentric and the anthropocentric. In Advaita Vedānta this duality is seen in the form of Brahma and *prapañcha*, in Buddhist philosophy it is visible in the form of *svalakṣaṇa* and *śāmānyalakṣaṇa* and in Jain Philosophy, it is presented in the form of *nischaya* and *vyavahāra*. It is of course possible to conceive this human world as has been thought by the traditionalists, as unreal. But it is equally possible to think that the world, constructed by human beings is real. When the social scientist refers to social reality the reference is to this man-constructed world. The Marxist thinkers also think that this man-constructed world is real. Their proposition that the reality is realized more and more in the evolution of society means this. Nevertheless this concept of anthropocentric world is not the same as the naive concept of realism which we get in the traditional European Philosophy.* It should not be ignored however, that the

*Even in the philosophy of Aurobindo and Vivekananda, the reality of the anthropocentric world is taken for granted. In Vivekananda, it manifests itself in the difference between *asat* and *mithyā* and perhaps it is for this reason that Vivekananda can work out a programme of social reforms. In the same manner, in the Viśiṣṭādvaita philosophy too, in accepting the reality of Jīvas, the world and God, there is acceptance of the concept of the anthropocentric world.

anthropocentric world is also the cosmocentric world, as it is the manifestations of the cosmocentric world only. If the anthropocentric world is called a second order world and the cosmocentric the first order world, one could see that in the ultimate sense, the anthropocentric world is not different from the first order world. Other than the first order world would only be the function or the function of the function of this first order world.

It must be remembered that the concept of prosperity exists or becomes meaningful only in the sphere of anthropocentric world. The concept of prosperity is after all a human concept. But it is not necessary that the concept of prosperity should invariably follow from a realistic philosophical theory. This is, in fact, even more true in the case of the realistic theory of Indian origin. For, although our philosophers thought of the world as existing in its own right and also as the man-constructed world, they have also introduced concepts like Heaven and God in their *abhyudaya* theory and have in fact given a greater weightage to the happiness in the other world and life after death. One root of theirs was already implanted in 'the other world'. These philosophies not only postulated the reality of Ātman, but also firmly believed in the concept of rebirth or reincarnation. On the face of it, the eternal existence of Ātman seems to be consistent with the concept of rebirth. But to my mind, there is some deeper inconsistency involved in this game as we try to develop a theory out of them. We have not only to accept the eternal reality of Ātman, but have also to accept the third concept, the concept of *apūrva* or *karma* in the development of the theory. In the course of history the concept of *apūrva* or *karma* became so much inseparably connected with Ātman that it became necessary for the Ātman to take rebirth. Our philosophers never thought how the responsibility of *karma* fell on the Ātman. Unless, the concept of *karma* is accepted the concept of rebirth does not become meaningful. Ātman *qua* Ātmā always exists by definition. But if it is to appear, in the human form and take rebirth, it is only due to *karma* or *apūrva*. But again we never think that Ātman does any *karma*. For one who does the *karma* is not the *pure Ātman* but the *Ātman as determined by the body*. These two concepts are not identical. So if anyone is responsible for doing the *karma*, it is not the pure Ātman but Ātman as determined by the body. But at the time of death and after cremation when the body is destroyed, who will be responsible for the *karma*? So the philosophers had to conceive of the *lingadeha* or *kāraṇadeha*. But there does not seem to be any logical reason for introducing this concept. I think it is on account of mixture of Pūrvamīmāṃsā, and Uttaramīmāṃsā thought that such concept arises. Strangely the Jain philosophy which thought that the body and Ātman have the same range (i.e., though they are distinguished they cannot be separated) or Bauddha philosophy which does not believe in Ātman could not remain aloof from this concept. The philosophy of Cārvāka alone seems to be the only exception to such a thought in India. From the purely logical point of view, it is not necessary for Advaita to bring the concepts of Karma, Lingadeha and their contact with the concept of Ātman. In fact, Advaita

philosophy need not even postulate the concepts of *karma*/rebirth and Jīvātman. All these concepts arise from ignorance. They do not in fact exist; on Advaitic theory itself they only appear to exist because of our ignorance or *ajñāna* and when 'this' ignorance is removed, there is neither Karma, nor rebirth nor *jīvātman*. That which arises from *ajñāna* or epistemic conditions alone can be destroyed by knowledge which also is epistemic. That which is ontic and arises from onticness cannot be destroyed or got rid of by knowledge. But Advaita's emphasis on knowledge, and that Karma, Jīvātman and rebirth are according to Advaita the epistemic categories, could never be understood by us. The contributions of the Advaita philosophy was thus totally ignored by us. In fact, if Advaita philosophy is properly understood, there will be neither a place for Chaturvarṇa nor for Varṇāśrama Dharma also, in its body. Our tradition talks of four *puruṣārthas: dharma, artha, kāma* and *mokṣa*. The first three are concerned with *abhyudaya*. The last one is concerned with *niḥśreyas*. If Karma theory were a statement of some natural law then the cycle of Karma could never be stopped. Advaita philosophy points out that it is a part of our belief system and so is a phenomenon of the human world, arises through our ignorance and can vanish with the rise of knowledge or Jñāna. Ultimately the human world is a part of the world itself and so everything that arises in the human world must wither away into the world itself. Realization of this is *mokṣa* or *niḥśreyas*. The concept of four *puruṣārthas* can thus be brought about in the following way. Granting that there are at least two men A and B and the world, there will be four kinds of relations:

1. A's relation with B, (what A must do for B);
2. B's relation with A, (what A should expect from B);
3. A's relation with himself (or B's relation with himself);
4. A or B's relation with W, i.e., realization that neither A nor B is different from W. I believe these four relations give us the concept of four Puruṣārthas, *dharma, artha, kāma* and *mokṣa* successfully.

In Manisika Stotra of Śaṅkarācārya, an episode is described. Śaṅkarācārya was walking through the streets of Varanasi, when from the other side came a Cāṇḍāla. Śaṅkarācārya said to him, 'Oh Cāṇḍāla, keep away. Let not your shadow fall on me'. The Cāṇḍāla said, 'Oh Lord, you are a great teacher of Advaita philosophy. I have not quite followed what you mean by my shadow. If my shadow means the shadow of my body, then your body is made of the same elements of which my body is made. If you mean by it my soul, you yourself have preached that souls appear different on account of *Māyā* only.' Śaṅkarācārya was moved by these words of Cāṇḍāla and he replied, 'although you are a Cāṇḍāla, from today you have become my teacher'. Our tradition depicted Cāṇḍāla as Lord Śiva. But the real significance of the Hymn was never understood by us. Śaṅkarācārya defeated the teachers of Pūrva Mimāṃsā. But the Pūrva Mīmāṃsakas inherited the seat of Śaṅkarācārya, after Śaṅkarācārya took his Samādhi. And they brought back, by

back door, the whole of *Karma Kāṇḍa* in Uttara Mimāṃsā. Although Advaita is even today theoretically of Advaita tradition, it has accepted every ritual of the Vedas and of Pūrva Mīmāṃsā. It is for this reason that today the authorities of Hindu religion, plead for caste system and Āśrama Dharma and simultaneously propound and accept the philosophy of Uttara Mīmāṃsā without locating any contradiction in these two positions. Even the real precepts of Gītā, we could not follow, for the same reason. The meaning of '*karmanyevādhikāraste*' is not that one should act without keeping before oneself any objectives. What is meant is that when one acts, one should know that he has control on the embarking part of the act. He cannot control the consequences or effects of the act. In order to understand the precept of Bhagavadgītā it is equally necessary to take into account the latter half of the verse. It is as follows: '*mā karmaphalaheturbhuḥ, mā te sangostvakarmaṇi*'. It means 'do not act with the intention that you would necessarily get the intended fruit (because you cannot control it). But do not be inactive either'. Not understanding this last part, we either got involved in rituals or become inactive. Uttara Mimāṃsā gives us the limitations of man's capacity and points to the limitation of his action. Instead, we thought that it tells us what a man ought to do.

In fact, even the concept of *karma* must be understood in the proper perspective. It pre-supposes three important concepts, (i) human actions are determined by certain causation principle, they are governed by certain causal series; (ii) this causal series is determined by man's freedom. Man can do whatever he wants to do; and (iii) if a man is responsible for his actions, if he does something good he should get a reward for his work. All these presuppositions are true presuppositions and are the formative principles of society. But all of them are concerned with this world. If one does not understand this and apply them to ideas beyond this world it will create a disorder. This is what has happened in the case of Karma theory. When to the three pre-suppositions of Karma theory we add (iv) that there is life after death and (v) rebirth a series of unreal beliefs and absurdities emerge. Such extension of our legitimate beliefs has not only happened in India, but has happened elsewhere too. Kant, for example, knowing full well, that man is finite, incomplete and imperfect, postulated that for the completeness and complete fulfilment of man, there must be rebirth and the soul must be immortal. This kind of thinking is also due to man's incompleteness. Just as it is natural for man to think of the worldly things, it is also his nature not to understand the limitations of this notion and illegitimately generalise this concept. Philosophies of Indian origin are not exceptions to this. It is for this reason that just as in Indian thought, we get the germs of human progress and human society, we also get something indicating against it. As a matter of fact when one is concerned with the ultimate reality one cannot, in fact, think of values, for such a thought is only human. But in one sense of the term, even human world is a manifestation of the ontic world and is ultimately dissolved in the ontic world. So whatever is manifest in the human world, cannot be inconsistent with the ontic. Although the human history tells us that it is a history of exploitation of one man by another man, still if the concepts like justice and equality and tendency against exploitation also exist in human mind and the human world, then in a sense they also belong to the ontic world and are, therefore, not inconsistent with the ontic world. In short, although philosophy as such may be silent, about the progress of man, it cannot be against it. In fact, the cosmocentric world should have the potentiality to produce the world of man's desire. That world which is able to produce man should also be able to produce (or in fact produces) the world of values which man produces. To realize this, what is in fact necessary, is man's own awareness. The human world comes into existence on account of human awareness—my awareness. And its destruction is also due to my awareness. In fact, to develop the concept of self-awareness and to determine the locus of this development is also due to self-awareness. Perhaps this may appear like a vicious circle. But to think of self-awareness as something different from consciousness is also a part of alienation process. (I am not using the word alienation in the sense Hegel and Marx use it, but I do think that this notion of mine is also at the back of their notion.) It is on account of alienation that man develops himself, discovers himself and also loses his way. Although, the dichotomies like justic-injustice, equality-inequality, exploitation-non-exploitation, are present in human world, to choose one of the alternatives and construct the society also seems to be the engineering of awareness. In my view, when Advaita philosophy talks of Ātman it is talking about this awareness. The traditional Advaita philosophy forgets this and so arrives at the conclusion that the world is māyā. But such a conclusion is not necessary. Nay, if we emphasize on the essential unity, of the human and the non-human world and if we realize that out of the alternatives created in the human world, man also can choose, man has freedom to choose, whatever he wants to choose, it can supply a good scafold in social reconstruction. Although, such a thing has not been worked out there should be no difficulty in working it out.

2. Formulation of Moral Problems

In the post-Moorean ethics it is prevalent to distinguish between normative ethics and meta-ethics. But if Moore's distinction is taken seriously one will have really to distinguish both ethics and meta-ethics from morality. What is called normative ethics as against meta-ethics is also concerned with analysis or understanding of concepts. "Pleasure or desire or health or perfection or as a matter of fact any moral standard is finally concerned with the analysis of the language and so I am inclined to think that one can think of morality without there being either a manifest moral language or a meta-ethics about the moral language. It would mean that in a dumb society people would certainly prefer one kind of behaviour to another but the rules of such behaviour

would not be formulated. The formulation of the rules of behaviour is primarily and essentially concerned with the communication of preference to other members of the society or even outsiders. An outside observer may perhaps notice that gradually one pattern of behaviour is adhered to more and more in a certain society and the other kind of behaviour gets eliminated (which in language form would be called depricated).

Moore in his ethics, says, in order to know what good conduct is, we must know what conduct is and what good is. This is one more evidence, I think, for thinking that in depath grammar Moore is trying to reduce ethical problems to epistemological. Epistemological problems are theoretical as against practical and it is this theoreticalness about these problems which make them linguistic when communicated or expressed. Of course in some sense practical problems also will have to be communicated and expressed and so the linguistic character of theirs will have to be maintained. But in so doing, it would not be possible to overlook the reference to practical patterns. Moore is trying to define a good conduct in terms of good and conduct and most probably thinks that the investigation about the good as also about the conduct can be done at theoretical level, that is without reference to actual practical conduct patterns. It means he is regarding good and conduct as some kind of concepts, arche-types, divested of experience. Such kind of Platonism presupposes that concepts are windowless monads having no relation to one another. And so in the conceptual geography of monadic space one would have to say that they are separable and separate from one another and are not merely to be distinguished from one another. In this programme when one says, something is good, it is forgotten that one is passing a judgement on some particular thing or a class of things. This judgement may be either a direct judgement or may be a conclusion of certain premises which are either rules or a combination of rules or a combination of rules and factual propositions. And although in the final analysis one would not be able to escape some kind of theory of concepts while explaining the judgements one would have to distinguish between concepts arisen through moral or aesthetic judgements and concepts like man or humanity or morality. When one talks of concepts like man one is, so to say, abstracting them, uprooting them from the context. This is not the case when one talks of judgements. So when one talks of good conduct, for example, one cannot really decide about, as Moore calls, 'good as such' and 'conduct as such'. Good conduct will have to be taken as a whole and although we regard good as an adjective of conduct, in the strict sense of the term goodwill not be an adjective of conduct but a judgement on the conduct. The parts of the conduct or conduct can exist in their own right if they exist at all, but the judgement on them does not exist unless there is someone to judge. Naive realism in the case of ethical judgements would not do. The same would be the case with regard to aesthetic judgements. I, therefore, feel that although one may distinguish between 'is' and 'ought' or 'good' and

'bad', and 'conduct' and 'good', Moore's approach to ethical problems will not give us insight into them.

In the light of what we have discussed above it will be interesting to find out how the problems of morality were formulated by Indians. Indians were no doubt concerned with the problems with which the intuitionists and hedonists and the perfectionists and the utilitarians were concerned. They considered these sets of problems under such terms as *ṛta* and *ṛṇa* and *bhavya* and *dharma*, etc. But a large variety of such problems were classified by them under what is known as *abhyudaya*. Under this concept of *abhyudaya* I would like to distinguish between *preyas* and *śreyas*. But their problem of ethics or for that matter their problem of conduct had one more dimension. It was concerned with what they called *Niḥśreyas*. The ethical problems according to them could be properly understood only if we understand the problems connected with *niḥśreyas*. And it is this attitude of theirs which really distinguishes their ethics, if it is properly understood. In the Western concept of ethics (except that of Spinoza), ethics is concerned with an individual or perhaps with a relation of individuals with other individuals. It is in such ethics that choice or freedom becomes very significant and preference, whatever analysis you may give of it, assumes the utmost importance. These problems are no doubt very important. And it is equally true that while dealing with such problems one has to distinguish between 'is' and 'ought' and one has also to admit that problems with regard to 'ought' cannot be logically deduced from the problems which are characterized by 'is'. Indians no doubt deal with these problems but their primary problems seem to be different. It does not seem to be a problem of an individual or problem of relations among individuals but the problem of relation between men and the world. According to them although individuals like men exist and there is a tendency among the individuals to exhibit their individuality and thereby to accept a pluarality in the world, the individuality of the individuals is only a temporal phenomenon. It is seasonal like grass. It arises at a particular time and after sometime the individuality withers away in the world. What we call individualization is actually the alienation of the self certain parts of the world from the world. This arises as awareness or self-consciousness manifests itself more and more, and decreases as self-consciousness decreases. Individualization, alienation or self-consciousness or all of them are inseparable from time. And in the temporal process, as the present becomes more and more past, individualization becomes more and more operative, but in the end it merges in the world itself. If we ponder on the birth and life of man and finally accept that each one dies, one would easily understand this cosmic process. Of course, man's brain is a wonderful workshop where hopes also assume the shape of facts and this may of course give rise to hopes as being considered as platomic facts. In this region are also located concepts like immortality of soul and rebirth. About such problems I shall keep mum for the time being. But if we understand the cycle of world, that at some point of time individualization comes into

existence and at some other point of time individualization comes to an end, we will also realize how one world is continuously becoming many and also returning to its oneness. The individuals, however, do not always realize their relation with the world, how their individualization is only temporal and ephemeral, how at some point they are going to merge in the world. To know this relation of the individual and the world, that is to transplant the world point of view on the individual point of view is the problem of ethics.

The other problems of ethics like what one ought to do or what ought to be, should only be consistent with this. In Western ethics these problems are no doubt discussed but that they are finally related and ought to be blended with the other problem namely the relation of man to the world, (and his final merger with the world) does not seem to be taken notice of.

Let me explicate my position. A child is born. He is no doubt a product of the world, a product of the environment. Gradually, however, the child starts asserting its own independent and separable existence. Although a part of the world it begins behaving and thinking as if it is independent of the world, the child has indeed a body and has also consciousness. And the body and the consciousness cannot indeed be separated. But in the process of individualization the individual starts thinking that the consciousness is independent of body. This happens on account of two reasons. First, it is the consciousness which controls the body, and two, it is the consciousness continuum, which determines the identity or individuality of the individuals. Like the splitting of the amoeba the consciousness not only splits from the body but it also starts 'splitting' itself. It becomes self-aware. But the self-awareness is also not just an event. One can observe more and more complex kinds of self-awareness. And we understand that these complex kinds of awareness are in fact necessary for the development of the personality. From objective point of view this development is in the direction of more and more separation. From the point of view of the individuals, however, this is greater and greater alienation from the world and in the process of this greater and greater alienation there is greater and greater identification with himself. This is the process of a function apparently behaving like a structure. Evidently when the function begins to behave like a structure, it does not create a new material structure, it is only the epistemic organization. The material structure behaves as if it is only the instrument for this epistemic structure, and one begins to call it Ātman, self, soul. Though they are three different types of concepts they get identified. Though Ātman, self, soul or consciousness is also dependent on the material structure this is lost sight of or if it is not completely lost sight of, another macro-material structure is thought of in the place of the macro-material structure and metaphysicians sometimes give it a name Linga Deha. When the separation or alienation of the structure and function of the body and consciousness is thus completed, the world of individual arises. This gives rise to pluralistic universe based on one world. This pluralistic universe, however, has again to enter a system of communication and behavioural patterns

through it. This system gives rise to the problems of what one ought to do and what ought to be. These give rise to the problems connected with sociality and problems which are normally known as the problems of sociology, political science, ethics and law. Another world is thus created. The first world is cosmocentric and the second world is anthropocentric. And usually when we are talking of the social reality we are concerned with this second world. But the second world is grafted on the first world. The second world acts like a medium, prism through which the first world can be perceived, grasped. And so the first world is tinted with the characteristics of the second world. Man tries to find this first world in physics or in biology. But even there the first world cannot be thought in isolation of the second world. The knowing model for knowing this world is therefore parabolic where the second is dependent on the first and it still acts as an independent centre along with the first. However the second world, the world of man is continuously changing because it is not objective in the sense the first world perhaps is. It is largely determined by time and each individual in this world is ultimately withering away in the first world. Realization of this fact is also concerned with the question what one ought to do. For, as soon as one knows what one knows, that one is going to wither away one must be prepared to change one's behaviour accordingly. And here lies, according to me, an ethical problem though at a different level. As soon as a man is born he begins to behave as if he is separate from the world. And in the process of getting separated from the world more and more he tries to build his own world. He develops notions like *his* property, *his* wife, *his* children. (His wife and his children also develop however their own world.) This development of the world is also by endeavouring in a way the organization of 'atoms' in the first world. Thus the process of detachment from the first world is also the process of attachment to the second world—the world of individuals. The second world of course begins from the time of birth. But as the man is moving towards death he is also proceeding towards the merger with the first world. But just as the world of attachment which is due to his own awareness and himself as a separate centre, the second process, a move towards the merger with the first world, is not automatic. Usually till he breathes his last he is enveloped by the shell of the second world. And so the problem of realization that the world of his is ultimately going to merge in the first world becomes of utmost significance. This is really the problem of detachment. At some stage man must know that he is not going to remain a member of this second world. The ethical problem in a sense, therefore, is of this kind. The problem of attachment enlarges as the self creates selfishness. One begins to think that things which are not part of his own organization are his belongings. The self itself is not his own belonging because it is the function of the first world. But he thinks so and thus that which is really separable and external to him is identified by him with his own. The ethical problem lies in this, that that which a man regards as inseparable from him is really not inseparable, it is only external to him and finally it is going to be separated from him.

And in this process the man himself is going to extinguish himself, that he is going to be one with the first world. This is what Indian Philosophers would call *nirvāṇa* or *mokṣa.*

In the light of the above discussion it will be interesting to see how the problem of mokṣa arises and how its solution is attempted in Indian thought. This would also help us to understand the difference in Indian and occidental viewpoints. As we have seen earlier there is a process of individualization which presupposes what I shall now call the first order world. In this process of individualization the different order worlds come to exist. All these different order worlds except the first order world are anthropocentric or biocentric in character. Even the concepts like pain and pleasure and happiness and value arise in this world. Naturally therefore, the concept of what is to be preferred and what is not to be preferred and if it is to be preferred why is it to be preferred and if it is not preferred why it is not preferred; all such questions also arise in this world. For example, if we prefer democracy to monarchy, the preference belongs to this world and if I want to seek my own pleasure, that also belongs to this world. Similarly when we say that the pleasurable is to be preferred it is not quite correct to say that pleasure is our end. We also want pleasurable means in the time continuum. One has afterall to distinguish between means and end on the one hand and cause and the effect on the other. Means is not a cause of the end which can be separated from the end.

Let me illustrate this. When the events are at two different points of time, one can significantly use the notions of cause and effect and say that they are different. The pulling of a trigger of a revolver and the death of a person shot can be so distinguished. But suppose we say that the world-peace is our end then I am doubtful whether we can ever say that the way to the world-peace is through wars. For, war means an end of peace, and it cannot be the case that that which is to be achieved say at point t_4 can be negated at points t_3, t_2 and t_1. That is, if the ultimate end is negated then we have acted against our own end. What is true of war and peace is to my mind equally true of pleasure. Pleasure is not a platonic concept which is to be achieved at some distant point of time, it will have to be sustained throughout the time. That pleasure is a continuum and not a concept has to be recognized. When we say pleasurable is to be preferred what we really mean is that what we prefer must have a characteristic of being pleasant, or at least it should not have characteristic of not being unpleasant. It means when we talk of pleasurable we are concerned with the way it is to be preferred. Thus pleasurable is a characteristic of the continuum which is both concerned with the end that we prefer and the means that we adopt for the achieving it and neither the end nor the means nor the mode of achieving it can be separated from one another. In Western ethics the problem about pleasure arises partly because the end that is preferable, the means to achieve the end and the characteristic which accompanies both are not properly distinguished and pleasure which is merely an accompanying characteristic of the end that is preferred, is regarded as an end in itself. Sometimes, of course, such end is also approved by us and so it is possible to think of such ends as *preyas.* Such ends are to be distinguished from *śreyas* where perhaps we are concerned with such objectives as what I ought to do for others or what others ought to do for me. Whether it is the problem concerned with *preyas* or the problem concerned with *śreyas* it is however related with the development of awareness. When we say something is valuable we require a continuent which must exist at least for two moments. One moment must be concerned with the knowing of a thing and the other with the recognition of it as valuable. The same is also the case when one is concerned with pleasure. Just as we are able to distinguish between an object and knowledge of the object so we are not able to distinguish between pleasure and the cognition of pleasure or pain and the awareness of pain.

As earlier stated there is a process of individualization which is connected with what results in separate identity of the individual and it is in this individualization which is connected with time that such elements like pleasure and pain arise. And perhaps it is on account of the cognition of pain and also of the misery that for man the ethical problem how to get rid of it (what ought to be instead of what is) arises. And it is this enquiry which leads to the investigation of what one ought to do. How one ought to get rid of the pain or the misery? Had there been a continuous pain perhaps such a problem would not have arisen. But since a large part of our experience is connected with unhappiness we are really concerned with how to get rid of it. The experience of pleasure and pain and the process of individualization is in a way non-voluntary process. The freedom or choice is also born in it as a natural corollary. But the problem of how to get rid of pain and unhappiness requires an individual effort, requires freedom and when one comes to know that our experience is such that here pure pleasure or pure pain is not possible, one begins to think that perhaps the individualization itself is to be annihilated and this can be done only with the recognition that the anthropocentric world is not different from the cosmocentric world. The way the philosophers of ancient India try to meet this problem is very interesting. Lord Buddha, e.g., thought that the world is strewn with *duḥkha.* His problem was how to get rid of it. And he realized that *duḥkha* and the cognition of *duḥkha* cannot be separated from each other. *Duḥkha* therefore requires an Ātman which will be a continuum of at least two moments. Without a continuum no one can experience *duḥkha.* He therefore boldly brushed aside the continuum concept of Ātman, and propounded the Anatta concept which really means the discreteness of moments. The moments may succeed one another as seconds and minutes and hours. But one moment would not continue in the other. Thus pain and recognition of pain will never exist together as a fact and if we think that they so coexist it is our ignorance. As soon as it is recognized that pain and cognition of pain cannot coexist our prejudice that there is pain will be removed and that even the belief 'I exist' will be removed. The extinguishing of this 'I-ness'

is accepted by all brands of Buddhism. This is the *mokṣa*, the *nirvāṇa* for the Buddhists. The Sāṃkhyas also think in the similar manner. All the experience that we have is some how or the other possible on account of the admixture of *Prakṛti* with *Puruṣa*. If *Puruṣa* and *Prakṛti* which are by nature opposite of one another and therefore cannot be mixed as in chemistry, it would follow that *Prakṛti* and *Puruṣa* are taken to be mixed together on account of our ignorance. As soon as knowledge dawns on us that this is not possible *Prakṛti* and *Puruṣa* fall away. The falling away of *Prakṛti* and *Puruṣa* will indeed remove the pain or misery which is an emerging characteristic only if we conceive of *Prakṛti* and *Puruṣa* together. The answer of Advaita Vedānta is indeed interesting in two ways. Whereas Buddhists think that pain is a characteristic of a continuum or Ātman, Advaitins think that the Buddhists analysis is superficial. Although it is true that a case of pain or misery requires a continuity of two temporal points which are also conscious, the Advaitins point out that any temporal continuity which has awareness as a constituent has in ultimate analysis no misery but happiness underlying it. It is not possible to think for anyone that he exists but he is unhappy. Although one may say 'I am unhappy' it presupposes in depth grammar a proposition of the form 'I am happy'. That 'I am' is analysable into 'I am happy' and vice versa. From the proposition that 'I am' it analytically follows that 'I am happy'. Had it not been the case an Advaitin is likely to argue, 'I would not live'. However miserable the life may be for all apparent purposes I still do not want to get rid of it. I am always happy although others may not know that I am happy.

The other analysis of Advaita may not be quite consistent with this position but is developed in a fashion very similar to one of Sāṃkhya and Buddhism. That position is given to us through propositions like *Aham Brahma asmi.* That I am Brahma or I am not different from Brahman in fact means that 'I' has to merge in Brahman, that I am not, only Brahman is. This is the same thing as the merger of the anthropocentric world into cosmocentric one. Such a merger would mean *Mokṣa* and this can be 'achieved' by the recognition that the individualization is due to ignorance. The separation of 'I' from the world is of course, due to ignorance, *ajñāna*, *avidyā* or *māyā* (at different stages of the Advaita theory these different concepts are used).

These two views of Advaita are seen in different Upaniṣads and in different Advaita works. There is evidently an inconsistently in the two views. But the inconsistency can be removed by accepting some kind of *satkārya* theory of causation. The effect must be present in the cause, that is whatever must be present in the effect must also be present in the cause. Awareness and happiness (which is its characteristic) are found in individuals. But the individuals are merely effects, the manifestations of the cause, the first order world. The first order world therefore must have the characteristic of happiness and awareness. It must be *Buddha* and as soon as man knows that his individuality is to be lost in the first order world the losing of the individuality will not mean absence of happiness, because in some sense happiness cannot be isolated from the first order world. It may be remembered that I am not saying that the application of the *satkārya* theory to this problem is necessarily right, I am only saying it is so applied.

3. Freedom

It would be interesting to see what ancient Indian thinkers think of freedom. True that in modern times the awareness of this problem in Indian context has arisen on account of the influence of the West. But the roots of the concept are found in the systematic Indian Philosophy. According to Indian Philosophy of almost every origin 'freedom' is a foundational concept. 'To be free' is the end of human beings. Freedom is, therefore, conceived as a value. Nevertheless it should be contrasted with other value-concepts like 'happiness' as commonly understood. Freedom is not something that 'ought' to be achieved, it is not something which is not there previously and which ought to be brought into existence afterwards. 'Freedom' is also the very essence of 'being'. 'Freedom' is inseparable from 'being'. It is usually thought that the agent is always free. It is only ignorance that makes the agent think that he is bound and not free. The problem of freedom in this aspect, is more a cognitive one than the normative. So, though 'freedom' is accepted as 'value' there is no attempt to deduce logically 'freedom' as value from its ontological or essential aspect. In the hierarchy of value 'freedom' occupies a higher place than 'happiness'. Happiness would cease to be happiness if freedom is eliminated from it. Thus 'freedom' is a value because no recognized value can be a value if it is segregated from 'freedom'. It is for the reason that freedom is even looked upon as the highest happiness or bliss. It will, however, be interesting to know that Indian philosophy particularly of Advaitic origin considers the concept of freedom at two different levels, (1) the individual level and (2) the world-level. In a sense an individual is, of course, regarded free at both the levels. But at the first level he is the 'maker' of his own destiny. He is 'responsible' for every wilful or voluntary act of his and he has a choice to take any course of action. But a really free man also realises that he is not different from the reality; the concept of otherness is only illusory and his relations with the worldly things like tables, chairs or money and property etc., are 'phenomenal' or *ephemeral*. In fact he relises that the so-called *values* are significant only in the human world. 'Names' and 'forms' have indeed no significance in the world that exists in its own right. A man's freedom then ultimately binds him to reality itself, he sheds his egoistic selfish character, discards the concept of property which binds him to the world of appearance and finally withers away in the 'Ultimate Reality' or Brahman as it is called, by Indian thinkers.

Let me explain the point further. Man's desire to know is sometime connected with man's desire to be free or *mukta*. But man's ability to know which contains the element of freedom is to be distinguished from his desire to be free. The desire to be free may culminate in becoming free, *mukta* or one

with the universe. This is how it should be possible to distinguish between *mokṣa*, where freedom is attained and *Mumūkṣā* where some kind of conscious desire indicative of man's freedom is hinted at. Sometimes *mokṣa* is equated with freedom. But *mokṣa*, in fact, restricts man's freedom in as much as it is dissolution of his personality. In my desire to be free there is a desire for identifying myself with the cosmos, with reality. But the realization has still not come. So the state points to my ability, my freedom to choose. It only indicates my ability (my freedom) to know the limitation that I cannot have my independent existence *ad infinitum*. It is this feeling which makes one surrender to the universe. It is the intense desire to break one's identity, to get rid of the alienation that causes one's independent existence, and gives one an independent identity. It is, thus, a question of negating one's identity. It is a case of suicide. A man who does not want to live has ability to kill himself but once this ability is utilized his ability to kill himself and ability to exist come to an end, simultaneously. Individual identity comes into existence on account of alienation from reality. Alienation from this alienation makes a man *mukta*, makes him one with the reality. In this respect freedom or *mukti* must be distinguished from freedom to be free and freedom to know. Freedom to be free when attained negates the ordinary concept of freedom altogether. When a man comes into being he is all along trying to be different from the world, he has become a second world. When he becomes *mukta* it is on account of his understanding that he cannot be different from the world all the time; it is defying alienation which has made him separate. Freedom in the sense of *mukti* then is complete annihilation of man's individuality. It is not freedom; it is freedom from being bound to a particular organization called man.

In what does constitute this organization? The first answer is that it is a whole governed body. This is certainly true. But the body gives only the geographical boundary to the organism. As a matter of fact we do not significantly use the word freedom in regard to a stone for example. We do not say that a stone is free. It means that the body must have some consciousness by which it is distinguishable from things like stone. It is this consciousness which though a product and function of a body controls the body. It is because of this that it is sometimes called Jīva or life. But there is a difference between being alive and knowing that one is alive. Knowing that one is alive is a further product or function of the body and consciousness or Jīva and may be called self-consciousness. Every living thing or being may not be so conscious. But it is the self which controls the organism. It gives freedom to the organism to choose and to act as if it is an independent world. It is the self-consciousness which gives identity to the organism.*

It is a function of the organism. But the strangest thing is that it is this function which gives the body the identity. Unfortunately the English world

*It is this self-identity which should be regarded as Ātman.

self-consciousness or awareness gives an impression that it is an abstract notion. It must be realized that an abstract notion cannot control an organism. 'Self-consciousness' is a living element, though it is definitely dependent on the body and also on the consciousness. It is this element which gives the organism (the man) the freedom to act, the freedom to choose, the freedom to desire. Freedom appears to be the very nature of this function. This freedom naturally exists so long as the organism exists as an independent world by itself. When the organism breaks, this function also ceases, but before such thing happens it is capable of knowing the limitations of the organism and it is capable of taking a decision to wither away in a bigger whole. What we call freedom or *Mokṣa* is a limitation of this freedom which makes man an independent world, an independent monad.

If we accept the monistic hypothesis that the world, the cosmos, is one and is governed in some systematic manner then the parts of this whole cannot and should not be independent. The independence or freedom of parts can be allowed only so far as it is not inconsistent with the nature of the whole. If this whole is voluntarily governed from within and is not mechanical, one may say that the whole is free, the whole enjoys freedom, though this may be only our pious hope. It is possible that the whole is only mechanical. But whether it is mechanical or voluntary if parts of the whole act independently and are not subjected to the law of the whole the world as a whole, would suffer from paralysis. One cannot conceive of a whole and at the same time think that parts are independent. A man, e.g., cannot act as a man if his hands and feet and ears and eyes behave in a discord and are not subjected to one 'command'. When in the world the phenomenon of self-consciousness man is on the scene he begins to behave as an independent world. It is beginning of paralysis for the world if actions due to his voluntary behaviour continue for a long time without there being any link between the world, which is the substratum for his existence, and himself. The cosmos in such a case would not be able to arrest or control man's actions. Man's freedom in a way is such a challenge. It is a kind of 'paralysis' of the cosmos and it is only the growth and decay of the body which makes him think of surrender to the cosmos. *Mokṣa* of Advaita concept is 'freedom' from man's ordinary concept of freedom which can be compared with paralysis of the cosmos. It is limitation of his freedom, limitation of his independent existence, cessation of his identity, withering away of his person, realization that a man does not exist any more. It is realization that Ātman does not exist any more that is expressed in language that it becomes one with the universe. Freedom is a human, individual notion. Whether similar notion can be attributed to the whole, the cosmos, the Brahman is a question.

Action and explanation

ARUNA MAJUMDAR
Asansol Girls' College, Asansol

The story of a man's life is perhaps the story of man's actions and the things that happen to a man. It is claimed that the logical structure of the explanations required in the cases of human actions is fundamentally different from that of the explanations offered in the cases of natural happenings. My attempt in the present paper will be to determine the exact nature of the explanation of human actions. This debate is not likely to prove interesting unless we find answers to some other relevant questions, what precisely is an "action"? What distinguishes a human action from a natural movement? Are human actions determinable or not? I shall further try to investigate why causal explanation of human actions at its best is found to be unsatisfactory. And this will finally lead to the point that human actions are to be explained in terms of "reason".

To act is to bring about something. Action is the opening-up of man to other men and the world. It is intelligible only as the expression and fulfilment or frustration of the actor's inner purpose, when, for example, I strike a match stick against a match box, the striking is a movement no doubt, but it is definitely something more than mere movement—it is an action performed by me. If on the other hand, a man strikes me and I fall, my falling is a movement which happens to me, it is capable of being explained in purely mechanical terms in which purpose plays no role. If an action always be someone's action, if an action has a necessary reference to the agent's choice or decision (which we may designate as its "innerside") then it is something for which the agent must be prepared to accept the responsibility. The part played by purpose or intention in explaining an action has been emphasized among others by Malcolm Knox.[1] Knox rightly thinks that if a man's intention be a genuine one, then there would be no gap in the continuity between the crystallization of intention which is the "innerside" of an action and the doing which is its "outer side". Human actions express individual's response to his environment. No definition of an action can be complete unless action is recognized as *response* and *creativity*. Human actions absolutely subject to the laws of nature cannot be creative, but viewed from the aspect of mind it cannot be wholly devoid of creativity.

We may now distinguish clearly "doing" from "happening". Happening can be predicted, but it makes little sense to say that happening can be intended. Whatever happens according to the laws of nature happens whether we intend them or not. But, "doing" is not to be regarded as such an automatic action or just a re-action. The notion of agency belongs to it essentially. The problem now arises how can we rationally expalin an action? Some thinkers

believe however that the explanation of an action aims at showing that the action in question was not a "matter of chance", but was to be expected in view of certain antecedent or simultaneous conditions. This expectation is not a prophecy or divination, but rational scientific anticipation on the basis of general laws. Objectivity of history or the study of actions consists, partly at least, in the predictability of human actions. And if historical study is to be treated as respectable study and not merely as an expression of personal indiosyncrasies, it has got to be objective. Its objectivity implies its universal character its impartiality, impersonality, communicability and repeatability. If human actions possess these qualities they must be predictable just as physical events are and their explanations also would be of the some type, i.e., causal.

Explanation of a phenomenon, whether physical or human, would consist in its subsumability under appropriate general laws. The belief that the structure of the explanation of human actions is identical with that of causal explanation used in natural sciences is based on the assumption that both human and natural laws are prescriptions—while the former regulate and control the behaviour of human beings, the latter regulate and control the behaviour of nature. But, it is also true that historical laws or human laws are much more complex and variable than the natural ones. This is mainly due to freedom and thought of human agents who under given conditions create or weave the patterns of history. The elements of freedom and thought introduce another dimension in human affairs and that is creative in character. In other words, human laws are in most cases the rules of conduct. They prescribe the things one ought to or ought not to do. Natural laws do not prescribe the course of happenings. Because of this fundamental difference the laws that causally explain the occurrence of natural events cannot by any manipulation exhaustively explain human actions. Natural laws explain natural events in the sense that they constitute the "necessary" as well as "sufficient" conditions for the happening of an event. But such laws are sometimes "insufficient" for the purpose of the explanation of human action. The uniqueness of human action poses a problem which cannot be satisfactorily tackled within the relatively rigid framework of natural explanation. Hence the question arises, are human actions determinable? Can we say that human actions necessarily proceed from conscious motives, desires or intentions?

Historically speaking, this debate goes back to the times of Aristotle, Spinoza, etc. One view which has recently gained ground (although one can trace its beginning even in Aristotle) is that in action, the cause of the movement is simply the *agent* himself. An agent has the power to affect the world producing actions. Aristotle felt[2] it necessary to distinguish voluntary actions from involuntary actions. Voluntary actions spring from within and partly controlled by the actor or agent, and involuntary actions originate from without and there is little or nothing which the actor can contribute to this sort of action. For Aristotle choice involves a rational principle or thought

and we make choice about the means of a voluntary action, action done by putting in our own effort. We assume the end and deliberate how and by what means it is to be attained. Thus choice is "deliberate desire of things in our own power" or as Aristotle puts it "it is either desireful reason or reasonful desire". Deliberation is about the things to be done by the agent himself, but actions are for the sake of things other than themselves. It is interesting in this connection to note that Aristotle is here offering a teleological explanation of human action in so far as he believes that actions aim at something other than itself and from its tendency to produce this end, it deserves its value. Value of an action lies in its ability to bring the agent nearer to the good which constitutes the end of men. Each action has an ultimate end which is valuable in itself and Aristotle's firm belief is that the ultimate end of actions must be one. If all actions are looked upon as performances, for the fulfilment of "one end" then actions are in a sense *necessary*. Yet in Aristotle's scheme there is an apparent contingency in the realm of human actions. Choice or "rational desire" being the efficient cause of human actions cannot determine causally its consequence. But this *indetermination* has little importance in Aristotle's scheme. In assessing this theory we should state that a cause is an event which is correlated with its subsequent event by a law so that we can appeal to the prior event to explain the subsequent one. But we have no grounds for *prediction* of any particular action if all we know is only that some particular action was produced by the agent. In sum, it would appear that we no longer have the possibility of prediction, or causal laws, and hence no causal theory at all. But, it is not clear to us whether or not Aristotle would believe that agent-causation is incompatible with event-causation.

Spinoza's[3] rigid determinism compells him to declare that human actions are determined events. Human beings are finite modes within the single deductive system which spinoza calls "God" or "Nature". The actual servitude and happiness of man, and his ideally possible freedom and happiness are both to be impartially deduced as necessary consequence of his status as a finite mode in nature. Every finite mode endeavours to preserve itself and to increase its power of self-preservation. But this self-maintenance is not the outcome of choice or decision. It occurs naturally and necessarily to all things in nature. That human beings are capable of making a free choice is a superstition. And if it is possible to show that every human action is to be deducible from a law of nature, then there is at least one sense in which we must say that the agent could not in this case have acted otherwise, i.e., no alternative action was possible. But as human beings are essentially free and the attempt to characterise free as the result of our ignorance is only an inexact understanding, Spinoza is certainly right in declaring that a "cause" is that which explains the existence of the effect, and "explanation" exhibits a necessary connection. But our objection to this view is that will, choice or desire can never be treated as *necessary* causes of human actions, these can influence human actions.

Hobbes offers[4] a purely deterministic explanation of human action, of course, from a different point of view. He defines philosophy or scientific knowledge as knowledge of effects or appearances which we acquire by true ratiocination; from the knowledge of their causes or generation. This definition, is, no doubt very significant. Hobbes identifies cause with antecedent motion. The traditional Aristotelian doctrine was that everything moves towards the natural end or final goal, Hobbes thinks that in the world of bodies final cause has no part to play. A world of bodies composed of particles is moved by other bodies and other particles. Hobbes' bridging concept was "endeavour"[5] which enabled him to describe human behaviour in terms of his general theory of motion. There is a close continuity between what we do and what we ought to do, i.e., between the actual and the ethical. To say this is to suggest that all human actions are caused or determined, persons performed them, being prompted by some endeavour of motion, fear, revenge, love etc. A man is free to perform an action according to his will without any external constraint. But it makes no sense to say that man's will is free, for will or desire or inclination proceeds from some causes. So, actions done on choice are explicable in terms of antecedent causes as we explain the motion of anything else in the universe. But can we not draw a distinction between "endeavour of motion" and "endeavour of mover"? Perhaps we can. And since there is no room for personal agency and there is nothing in this account that is "my doing"—man is a creature and *not* creator of his conditions, physiological and physical. If desires, volitions are the causal factors, and these are subject to causal explanation in terms of antecedent psychological factors then what happens is none of man's own doing. Hence it is these causal factors that are happenings in us rather than things that we do. All these things are somehow brought about by (means of) prior happenings of like sort. Consequently, all our thoughts degenerate into purely natural Phenomena wholly exempt in principle from rational appraisal and that is really unsatisfactory.

It is of some interest here to recall the views of Collingwood who believes in the causal explanation of human action. Collingwood argues[6] that it is possible to explain human actions casually if we take "cause" in the historical sense of the term. Cause and effect in history refer to a type of cases in which both are human activities. That which is caused is the free and deliberate act of a conscious, responsible agent; "causing" means "making", "inducing", "forcing", "persuading" etc. For Collingwood, an action would be deliberate only if it is caused, though, of course, the cause may come into operation through the act of a second conscious and responsible agent. It means that the second person may put the first in a certain situation in such a manner that the first now believer himself to be in a situation, and he persuades the first to form a certain intention. If A causes B to do an act C, C is B's own act, it is not A's act, and Collingwood is of opinion that B is a free agent in doing C, and responsible for it too. There is no contradiction in saying that the act C

was caused by A and B was responsible for it. In that case we cannot say that A is not responsible for the doing of C; A is responsible for its own act of pointing out certain things to B, by the help of which he persuades B to commit the act C. Again it is perfectly possible for a man to act on his own responsibility when his knowledge about the situation is not dependent on the suggestion of others, in that case a man can be said to cause his own action as well as to do it. To say this is to hold that the choosing agent, is the free "cause" of his acts in the sense that the knowledge of his situation influences his course of action in that particular situation. But this influence is fundamentally different from the constraint which natural laws impose upon the happenings of natural events. Collingwood's approach is justified in the sense that explanations as causal in the case of human actions is different from the causal explanation as applied to natural events, then, would it not be reasonable to designate the explanation of human action as something different from the explanation used in the case of natural happenings? An agent, being a *free person* can never come under a causal relation (cause in the sense of a necessary and sufficient condition). So causal relation fails here. If Collingwood's line of argument would express such a consequence we have no objection against him.

It is interesting in this connection to follow the arguments of those philosophers who are unwilling to accept the demand that human actions are causally determined. Notable among them are: Melden, Nowell-Smith, Ryle, Hampshire. In connection with the problem of the relation between a motive and action Melden argues[7] that the presence of a motive cannot be treated either as a necessary or a sufficient condition for the occurrence of an action. Melden restricts the use of the term to the case of intentions. The logical connection between a motive and its action is possible if the motive were some event either concurrent or antecedent to the action and this is impossible if "motive action" is a causal sequence. Given the statement of the motive an action can be explained in two-fold ways: (1) by placing the action in its appropriate context a motive provides us with a better understanding of the action and (2) a motive of an action reveals something about the person himself. True that this is completely different from the causal explanation of an action, since a person may refrain from acting though he has in mind a specific motive for acting in a particular way we cannot call motive the sufficient condition of the action and since a person may act without being prompted by a motive it cannot be called its necessary condition either. Thus, a motive or any other event cannot be related causally to its action. Melden is surely right in his approach to the problem in saying that motives cannot refer to some other event which can explain causally how the action came to be.

Nowell-Smith[8], for example, agrees with us to a large extent. He is also in favour of the view that we cannot predict "what we shall do" but we can decide "what we shall do". There cannot be a necessary connection between a man's deciding and acting because what mind decides today may change to-

morrow. A Change of mind may be sudden and inexplicable. If a man has decided to do something and does not do it then either the man changed his mind or the man was prevented from doing. This argument does prove the failure of the mental-cause theory about the explanation of human action. Ryle[9] also claims that an explanation in terms of a motive is different from an explanation in terms of its cause. Motive explanations are explanations in terms of dispositions, tendencies, abilities to act in a way. A motive is not an event or force inside us which functions as an antecedent cause, but is a disposition to behave in a certain way when certain events occur. Motives certainly do not qualify themselves to be regarded as causes, but what strikes us is this; motive explanations should not be confused with the mere dispositional explanation. Dispositions only tell us the possibility of occurrence of events, it does not tell us of the occurrence as such. Thus, the Rylean form of the dispositional analysis cannot sufficiently recognise the occurrent character of human action.

On the above question Hampshire's opinion is noteworthy. He thinks[10] that the notion of doing is unintelligible without the notion of intentionality prediction is not possible in the realm of action and intention has no relevance to the happenings of nature. Intentional actor intending its object goes out of itself and attempts to achieve its end completely. This view of internal and persistent continuity between self-positing action and its other intending aspect is clearly opposed to the atomic view of psychological action according to which an action is a sort of re-action to a stimulus. The atomists believe that the connection between a self-positing action and its other intending character is always the result of past cumulative experience of performed habit. This account is an indirect attempt to minimise the importance of freedom in action. That is quite unsatisfactory. Though human actions cannot be predicted, there is a kind of certainty about human actions. It is not inductive certainty which is based on empirical evidence. It is based on reason and it may be called decision. A person's announcement of his intention to do some action in the future is not a case of prediction is evident from the fact that if the person does not act as he says, this expresses him not to the criticism that what he said was false, but to the fact that he has changed his mind. What I shall do in the intermediate period between what I am doing immediately and what I shall be doing mediately cannot be predicted as natural phenomana can be. This approach to human action is bound to remind us of the non-causal model of explanation.

It has rightly been pointed out that human actions are not wholly determined. Moral life suffers from endeavours. It is a mode of living which is guided by interests and intelligence of man in the right direction. For this reason, the power to decide otherwise is always possible consequently, the best model of explaining action would be intentional or teleological. Actions are said to be teleological, if and only if, they are directed to the realization of a purpose or end. And the relation between goal intended and action done

is non-causal. Intentions, motives or desires can *influence* an action but do not *cause* or determine them. Thus "explanation of actions" would be "explanations in terms of reason". We may call such explanations *rationalizations*, and say that the reason rationalizes the action. At this stage, can we say rationalization is a species of ordinary causal explanation? This question requires some clarifications.

An explanation which consists of a description in terms of end, result or goal aimed at is often called a teleological explanation. In favour of the teleological thesis it can be pointed out that we do have here a kind of explanation, i.e., often called one of the forms of rationalization. Controversy arises when philosophers go on to claim that we have here a kind of explanation irreducibly different from and incompatible with ordinary causal explanation. It is this claim that we must examine. Even if all follow, just for the sake of argument, that a future event can causally affect a present event we can easily dispose of the doctrine so far as the explanation of actions is concerned. It cannot be the case that every action is produced by the future goal state towards which it aims for the simple reason that in many cases at least, the future goal state never obtains, is never achieved. Since the appropriateness of reason-explanations of actions does not force us to accept a special, unique and irreducible *kind* of explanation so we simply have here a special kind of explanation, viz., non-causal.

Sometimes it has been said that in action there is an implicit reference to some set of rules, norms or principles in terms of which the action is described and can be evaluated. Here the main point is that actions are typically done for reasons, and reasons involve reference to rules, norms, standards or principles. It cannot be denied that values enter into the very description of large number of human actions. But to give reasons is to show, how things will be better for the actions having occurred. And to give *justifying* reasons for an action is to do something very different from giving a *causal* explanation of action. Causal explanation involves citing prior events and laws which correlate those events with subsequent events whereas explanation in terms of reason involves showing how the action is a case of how things *ought* to be.

Philosophers who assimilate reasons to causes have rightly pointed out certain similarities between two kinds of explanation. Both cause-explanation and reason-explanation can be signified by the words "because" and "cause" and "even reason". But the mere presence of the words "because", "cause" and "but for" in two explanations does not make them of the same kind. A person's reason for doing x must contain a reference either to x or to something which is thought by the agent to be a means to x. On the other hand, to qualify a phenomenon as a cause we must observe certain characters that are necessarily the sign of causal relation. Thus, reasons and causes are very different staffs, although in some cases reason does perform the role of cause. If there are good reasons for saying that actions are *caused* by reasons then the presence of decisions or dispositions does complicate the causal story by intro-

ducing a further link in the causal chain. To cite my reasons for acting is to cite those beliefs and desires which were such that I would not have acted that way if I had not them at that time. Do we not have here a relationship most naturally classified as a *causal* relationship between these desires and beliefs on the one hand and my action on the other? It would seem that one's reason for doing something must be causally necessary for producing one's action. Since the relation between a cause and its effect is very different from the relation between reasons and actions so we can refute the above suggested thesis. We shall mention, therefore, three purported differences between "reason actions" and "cause effect" relations. (1) Cause and effect must be *essentially connected* to each other, whereas reasons and actions are not; (2) cause and effect relationship must be instances of generalizations, whereas reason-action relations are not so; (3) causal relationship can be known only on the "basis" of previous experiences, whereas one can know the reasons for one's own actions without such evidence.

1. It is frequently claimed that causes and effects must be logically independent of each other in such a way that the existence or the non-existence of the one must in no way logically entail the existence or the non-existence of the other. But it might be replied that cause effect relation is not a case of logically independent relation. A cause is that the occurrence of which is necessary for the occurrence of a thing, i.e., it is *necessary* and *sufficient* for the occurrence of a thing. If it be so then the presence of a cause entails the existence or the non-existence of its corresponding effect. But there is no doubt about the fact that, the presence of my reasons for doing some actions in no way entails that the action will occur. "Reason for" is an intentional notion, containing internal reference to something. Since one's reasons typically consist of one's *beliefs* and *desires* at that time, it should be pointed out that these two are logically independent of actions. In reasoning man is essentially free, a *free* person cannot account for the *necessary connection* between his reasons and doings.

2. When we have a causal explanation, we appeal either explicitly or implicitly to a generalization which links cause and effect by stating that whenever the prior circumstances obtain the event follows. It is evident that reasons and actions do not meet this condition. We do not have a causal connection here. Although there may be a simple law connecting reasons and actions but that must not be indentified with causal laws in nature. Following Hempel[11] it can be said that explanations of human actions are nomological in import at least, if not in explicit formulation. This argument intends to show that the explanandum phenomenon resulted from certain antecedent and perhaps concomitant conditions and these conditions may concern psychological or sociological tendencies. Hempel shows that reason-explanations do not differ in their logical character from explanation in physics or elsewhere. It is instructive to recall here the views of Davidson[12] who tries to show some or other nomic regularity often named as law of nature is at work behind human

action. Davidson argues explicitly in favour of the nomological character of causality "...when there is causality there must be a law; events related as cause and effect fall under strict deterministic laws."[13] The only difference in between Hempel and Davidson consists in emphasizing the exact way in which laws are involved when we explain actions by mentioning the agent's reasons. Davidson holds that the laws that are implicit in reason-explanations seem to concern only individuals—we do have nomic wisdom concerning mankind and womankind but this does not directly enter into reason-explanations. This wisdom advises us about the nature of dispositions like desires and beliefs. In assessing this theory we should note that Davidson finds no incompatibility between intention and causality. It is true that action is linked up with body but actions have intentional character also. Davidson's theory suffers mainly due to his desire to identify human actions with bodily or physical movements or natural events. As actions are not identical with natural movements so regularities behind human actions are not nomic regularities which work at the level of physical phenomena. Thus, a generalization connecting reasons and actions might be formulated in the way that whenever a person had such and such circumstances then he will act in such and such way. As men are rational that generalization might not be true of all men. Men are more or less free to decide their courses of actions, make up their mind in given situations and to develop their attitudes differently under different conditions. Thus, no laws can be offered *for good,* for the explanation of human actions.

3. Another important feature of ordinary causal relationship seems to be lacking in the case of reasons and actions. In the ordinary cases, to know that A is the cause of B one must have evidence and this evidence must be in the form of experience of analogous cases. But in a good many cases in which an agent acts for a particular reason can know what his reason was without the need of experience of analogous cases or of other kinds of inferential reasoning. The kind of knowledge one has of one's own reasons in acting is not compatible with the existence of a causal relation between reasons and actions; a person knows his own reasons in acting infallibly without induction or observation and no ordinary causal relationship can be realized in this way. Consequently, reasons, which explain action best are all man made, do not cause the actions that they rationalize.

In philosophy a distinction has sometimes been drawn between "motives", "intentions", "desires" as referring to quite different things. A man's intention is *what* he aims at or chooses, his motive is *what* determines his aim or choice. But the present discussion is not concerned with the matter whether or not "motives", "intentions" refer to the same thing rather than whether or not they determine *causally* the doing of an action. We have seen that motives or intentions which constitute the reasons for human action are not causally, but intentionally *necessary* for the explanation of human action. It seems that causal explanation is alien to the mode of understanding that we ordinarily seek of human actions.

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Man and hermeneutics*

KRISHNA ROY
Jadavpur University, Calcutta

Both philosophy and social sciences are like everflowing streams—they neither remain stagnant nor remain inefficacious. By their inherent dynamism they not only delve out challenging new issues but also throw new lights on the exciting perennial problems. As we discuss the history of philosophy and science as a whole, it appears that man occupies the central position in that history. In fact all knowledge is the result of human endeavour; it is *of* man or *about* man, concerning that which affects man or is indispensable to man and it is inevitably *by* man and *for* man. Hence, it may appear superfluous to discuss the role and significance of man in any scientific and philosophic endeavour. But if one ponders a bit further, one will realize the need of reasserting the importance of man in all our cognitive processes.

Since the days of Enlightenment, there was a tendency to extend the model of the natural sciences even to the studies of history, society and human life. The supporters of natural science claimed to provide clear, unambiguous, objective, impersonal knowledge of nature and by the models and methods of those sciences they sought to procure similar knowledge also about history, society and our life. Consequently, it became fashionable that the infant social sciences and the then philosophic trends duplicate the glory of the natural sciences by imitating their methods. Amidst such an atmosphere of scientism some perceptive thinkers realized that scientific clarity was not always enough and they detected how such scientific models lack intentionality, creativity and ingenuity. The attempt of the 'scientistic' philosopher to make knowledge impersonal shows his lack of understanding of its reflective and anthropological character. Total alienation of knower from the knowledge is impossible. Man is always indispensably present in all knowledge and action. In order to reassert the claims of man and the specifically human characteristics these imaginative philosophers resorted among other things to hermeneutics as one of the plausible methodologies of the human sciences. The resurrection of hermeneutics in the modern period is, thus, inalienably connected with the reaffirmation of human dignity and subjectivity.

The term 'hermeneutics' has recently become quite popular among the students of philosophy and social sciences, but that which the term signifies is neither very novel nor very modern. Hermeneutics originally meant interpretation of texts which were often incomplete, ambiguous or indistinct and in this sense hermeneutics goes back to the ancient or classical period where

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we find various interpretations of Greek, Latin and Sanskrit texts. The need of philology and exegetical studies was recognized by most philosophers and other speculative thinkers of all ages. Originally, hermeneutics, thus, had two primary intentions; first, to ascertain the exact meaning-content of a text, word or sentence; secondly, to discover the messages and significations contained in symbolic forms. Gradually as its scope extended, its task also became multifarious. The various supporters and exponents of hermeneutics explore various dimensions from their own specific perspectives but in all these cases man remains in the central position.

To the modern exponents hermeneutics does not imply interpretation of classical, lost and historical texts merely, it includes exploring the meaning and milieu of all human actions and intentions. In order to understand the actions, events and artifacts—which are the manifestations of human creativity and subjectivity—it is necessary to comprehend the context or the atmosphere in which they have their origin and being and this consequently reveals the perspective from which the creators or actors view the lived-world. From its textual and 'regional' character, hermeneutics thus becomes general and multi-dimensional. It is no longer being treated as the interpretation of texts only—it takes into account the context or milieu too.

Such transition from text to context, from 'regional' to 'general' hermeneutics (in the words of Paul Ricoeur) became possible through the writings of Schleirmacher and Dilthey primarily. Schleirmacher seeks to arrive at a '*Kuntslehre*' or technology that may be applied to all the experiences of human life. Besides grammatical interpretation, he stresses on psychological interpretation, which wants to focus on the singularity, originality and contextuality of the author's message. This psychological interpretation is being described as a 'divinatory' process of apprehending the 'inner origin' of the composition of a work, 'a recreation of a creative act'.

Dilthey reiterates that hermeneutics is not just one way of grasping human experiences; it is essential and inevitable in any understanding of human life as well. Hermeneutics, thus, becomes the foundation of *Geisteswissenchaften* (human sciences). He feels that it is not proper to compare the cultural sciences with the natural sciences, as they have two basically divergent aims and objectives. The natural sciences seek to eliminate all references to human experiences, which in its turn characterizes the human and cultural sciences.

This Diltheyan project gradually leads to the method of *Verstehen* (understanding), used in social sciences, which primarily resorts to the inner experiences of introspection, intuition and empathy and have nothing in common with the procedures of the natural sciences. Such understanding requires certain familiarity with the social and cultural contents in which they occur and in the historical and social sciences we not only interpret always but we also reconstruct and relive that which is alien and past.

Dilthey's contribution also had a direct impact on the then sociology. Besides Dilthey, Marx, Weber and Mannheim are the three noted sociologists

who became influenced by Hegel's theory of history and even before Dilthey, Marx recognized that the true interpretation of history can be given from its sociological perspective. He further believes that the method of fruitful understanding should include *praxis* (practical action) to eliminate all false conceptions or ideologies. What distinguishes Marxian view from the Diltheyan one is Marx's emphasis on practical socio-economic conditions rather than on any psychological or epistemological factors.

Even in the writings of Max Weber we notice that he has often employed interpretation to reconstruct the meanings of past societies that have become aline to us today. But, unlike Dilthey understanding to him is not intuition, sympathy or empathy merely; understanding essentially refers to intellectual, analytical and predictive explanation of action. Thus, it appears that though Weber supports the subjective grounding of the social sciences, yet he also seeks to provide a 'scientific' basis for social-scientific research.

All the above discussions primarily emphasize the role of context or situation in any hermeneutic endeavour. This context or situation is inextricably bound up with actions and the actor. The context or situation of an event or a person gets modified and changed through human actions and motivations. Similarly, our actions and intentions are always conditioned by our environment—natural, social, political, economic, religious and cultural. We can never transcend or eliminate totally the impact of all these factors from our life, thought and action.

This inevitably leads us to the central question—to the role of man—who is both the subject and the object of interpretation at the same time. All interpretative acts—understanding and even explanation—are human projects. Man is the subject of all intentional (i.e., conscious, chosen as distinguished from mechanical) actions—either speculative or practical. Whatever man thinks or does bears the imprint of his being. But man is not merely the author or subject of interpretation—he is also its object. Man—with his actions and intentions—are unceasingly being understood (or misunderstood), explained, judged and interpreted in diverse ways from diverse perspectives. In fact, human nature being very complex and ambiguous gets and needs sundry interpretation from multiple dimensions. And in all such interpretative acts, human nature partly expresses and partly conceals itself.

Man, thus, becomes the centre of all hermeneutic activities. This has been emphasized also in hermeneutic phenomenology and existentialism. Heidegger's hermeneutic phenomenology focuses on the philosophical interpretation of all human existence, it automatically becomes hermeneutical as it contains a circular reflection on its own nature. All deliberate interpretation takes place on the basis of Dasein's historicity, i.e., on the basis of a concrete situation. There is no presuppositionless, prejudice-free interpretation, for while the interpreter may alienate from this or that situation, he cannot free himself from his own facticity, from the ontological condition of always already having a finite temporal situation as the horizon. This leads to subjec-

tivism, which all existentialists do conform and regard that the lived-world becomes meaningful and valuable only with respect to man. The world is being measured by man, interpreted by man and becomes significant by and for man. It is man who always interprets and it is man's being-in-the-world that always becomes interpreted; this leads to the inevitable circularity of hermeneutics, keeping man in both the ends.

Heidegger's insistance on the ontological primacy of human existence has been shared and extended by Hans Gadamer, the noted hermeneutician of the contemporary period. Opposing Dilthey and Schleirmacher, who supported the methodological alienation of the knower from his own historical situation, Gadamer believes that the interpreter or knower can never transcend his milieu and the alienation of the knower from his own historicity is impossible. Unlike Descartes or Hegel, who believed that experience (*Erfharung*) is opposed to cognition, Gadamer wants to emphasize that experience is something that is a part of the historical nature of man; this experience is being constantly acquired and from which 'none can be exempt'. He further wants to show that the 'linguisticality' (*Sprachlichkeit*) of our experience expresses how we participate in a tradition through the various interpretations of signs, works and texts. Through dialogue and language hermeneutic experience becomes one with our own existence.

In Sartre also we notice that philosophy becomes primarily anthropocentric; it does not start from nature or matter—it originates from man and culminates with him. This man is not only conscious, intentional and cognitive—he is the centre of all feelings and emotions and is the imitator of all actions too. Like Descartes, Sartre also feels that consciousness is inseparably conjoined with our existence. But unlike Descartes he gives primacy to existence and reversing the age-old Cartesian dictum 'Cogito, ergo sum', Sartre would prefer to say 'I exist, therefore I think'. Existence precedes essence and cognition.

Human existence—with its thought, language, intention, action, meaning and value—thus remains in the forefront of all hermeneutic processes. From its origin as exegetical studies hermeneutics becomes contextual and historical and this gradually leads to subjectivism and humanism. Paraphrasing the famous Sartrean dictum 'Man is condemned to be free' we can say that all hermeneutic projects are condemned to be human; it can neither alienate man nor make it a-historical.

If we turn our glance towards the East, we notice the presence and prominance of both hermeneutic and humanistic trends in Indian philośophical systems. The various philosophic systems of India may be regarded as the product or by-product of sustained interpretation of the classical Indian texts. Reassessment and re-interpretation of the Vedas, since the ancient days, constitute the basic structure of Indian philosophy, religion and culture. All the six orthodox systems of Indian philosophy—Sāṃkhya, Yoga, Nyāya, Vaiśeṣika, Mīmāṃsā and Vedānta—are the outcomes of the diverse dynamic interpretations of the Vedas. These systems are called *āstika* systems as distinguished from the *nāstika* systems, e.g., Buddhism, Jainism and Cārvāka philosophy, which are somewhat independent of the Vedic tradition. But even in the formulation and development of these systems amplification and re-construction preclude stagnation. Hence, Indian philosophy may be regarded as truly hermeneutic in nature.

The common features of all these Indian philosophical systems are their inherent purposiveness and deep-rooted humanism. Philosophic wisdom is not merely the satisfaction of intellectual curiosity—it has the practical necessity of directing man to make life meaningful and perfect. All Indian philosophers explain how proper knowledge can serve human ends—*puruṣārtha*. Such purposiveness goes well with anthropocentricity, the other sustaining character of Indian culture. Instead of emphasizing the dichotomy of man and nature, the Indian philosophers reiterate the dialectic between man and his world. It is evident that the splendour of the universe and the natural objects fascinated the seers of the Ṛg Veda but the locus from which they wanted to view, explain and use them was undoubtedly the man himself. The primary *telos* of all Indian thought is to explore the mystery of the human nature. 'Know Thyself' (*Ātmānaṃ viddhi*) is the dictum of Indian philosophy. Such knowledge of man's essence and being is not only covetable for its epistemic value; it is also the necessary condition of achieving perfection in human life.

Perfection of the total, deeper nature of man can be achieved through such self-knowledge which will also enable man to liberate from all earthly follies and miseries. In our practical life we always face an imbalance between what man is and what he wishes to be. We are continuously being tormented by our own inner uneasiness, pangs of conscience and quest for self-realization. True self-knowledge and disciplined life can overcome such tension in our nature and can truly integrate personality. That which sustains man—*dharma* (a synonym for religion), thus remains parallel to the vision of reality—*darśana* (a synonym for philosophy). The Indian philosopher does not stop short at the discovery of truth merely—he strives to realize it in his own outer and inner experience: *Tattvajñāna*—knowledge of truth and reality thus opens up the possibility of *mokṣa* or liberation. The conceptions of *tattva-jñana* and *mokṣa*, however, have received diverse formulations in different philosophical traditions but amidst all these diversities an underlying unifying note strikes us: it is the deep sense of awareness of the actual fleeting condition of man and an intense urge for self-transcendence and perfection. Indian philosophy, thus, is both homo-centric and value-oriented.

Without going into the details of the axiological and anthropocentric nature of Indian philosophy we can sum up our account by saying that the traditional Indian thinkers—since a by-gone age—have anticipated the need of focusing attention on man—on his thought and action, which is now being increasingly echoed in the western world. Hence, all farsighted and perceptive thinkers—whether in east or in west—propagate the prominent role of man in all philosophic hermeneutics.

Phenomenology and Indian philosophy

NAVJYOTI SINGH
Nistads, New Delhi

Critical eassy on the International Conference on 'Phenomenology and Indian Philosophy' held in New Delhi from 5th to 8th January, 1988, sponsored jointly by the Indian Council of Philosophical Research (ICPR), New Delhi and the Centre for Advanced Research in Phenomenology (CARP), Pittsburgh, U.S.A.

Indian intelligentsia has long felt the schism between Indian and Western philosophies and there has been a strong desire to transcend this schism. There is a strong need at least to open a serious discourse between the two traditions which somehow has not really taken place on the equal footing. To this end two major institutions of philosophy had come together to organize this international conference. The ICPR, which is a chief patron of philosophical research in India, and the CARP, which is dedicated to the cause of advancement of phenomenology, jointly visualized the ground, the theme of the conference, on which a deeply meaningful discourse across traditions was thought to be possible. The event was essentially woven around the mind of Prof. J.N. Mohanty, an Indian philosopher currently based in U.S.A., who is acclaimed to be a first ranking phenomenologist in the West and has written several papers and a book on issues dealing with Indian philosophy. It is his labour that had actually prepared the intellectual ground for discourse and had made possible mobilization of dozen odd Western scholars associated with CARP and the Indian scholars associated with ICPR.

One could naturally expect some major comments to be layed out in this conference on the comparative state of the two great philosophical traditions, namely, Indian and Greco-European. Specially since it was a consequence of more than four decades of toil of Prof. Mohanty, whose stature in contemporary Western philosophy is well established and who has also done serious research on Indian philosophy. One could expect deep and sincere comparative insights into the two traditions. But, strangely enough, the event fell short of this expectation not merely because several papers only dealt with one tradition and had no comparative content but also because others had poor comparative content barring few exceptions like papers of Prof. Mohanty or Prof. Kern. The failure I think was a result of the perspective within which was conceived the very idea of this international conference. This is not to suggest that the proceedings of the conference did not lead to precipitation of several deep comparative questions. Indeed the conference provided an occasion to reflect fruitfully on the current state of comparative scholarship.

The very idea behind this event, to begin with, was conceived on unequal ground quite characteristic of the current state of politics of knowledge. From

the Western tradition a particular system of philosophy was singled out, namely, transcendental phenomenology, described by its founder Edmund Husserl as :

(a) The first ever scientific philosophy devoid of metaphysical presuppositions which had plagued *all* earlier philosophical enterprises of the West;
(b) Culmination of a search began by the Greeks which had since fumbled in wilderness, a search of a secure pivotal platform from which to reflect presuppositionlessly and endlessly. Transcendental phenomenology discovered such a platform and thus inaugurated 'scientific philosophizing' which is securely founded on that platform.

From the Indian philosophical tradition no particular philosophical system was singled out for comparative probing. As a result, no indepth investigation and presentation of any Indian philosophical system was possible for the comparative purpose. Rather any fragmentary aspect of Indian tradition could be invoked or even pet formulations of 'every aspect' of Indian tradition could be brought in for the comparative discourse with a particular system of transcendental phenomenology. Phenomenology with its sophisticated technical apparatus was pitched for an encounter with diluted ideality called 'Indian philosophy' which lacked coherent unified technical apparatus. It is quite understandable if an encounter is conceived at a civilizational level where presuppositions of two philosophical traditions are comparatively debated. Such a discourse can be meaningful even at the expense of abstaining from the technicalities of various philosophical systems which constitute these traditions. Appropriateness and comparative consequences of ascribed/discovered presuppositions involved in the two philosophical traditions would have become the major focus of attention in this case. Equally understandable is a comparative endeavour between two philosophical systems belonging to the two traditions so that technical subtleties and sophistications are allowed to face each other. Neither of the two strategies were conceived by the organisers. As a result, phenomenology with its technical jargons was hegemonically present without any Indian philosophical system being able to establish comparative dialogue with it or vice versa. Another consequence of this inequality was that phenomenology's rootedness in Western tradition could never be brought in. Phenomenology was present with its roots mystified and 'Indian philosophy' was present with its sophistication obscured.

One wonders if this inequality was the result of a poor state of Indian scholarship or had deep rationale grounded in the justified comparative standing of phenomenology *vis-à-vis* Indian philosophies. Mohanty's key note address—"*Phenomenology and Indian Philosophy: The Concept of Rationality*"—naturalized and rationalized this inequality. For Mohanty, Husserl's phenomenology gave him 'a stance of a transcendental ego' unabling 'apperception of other world (in this case Indian philosophy)' and 'understanding

other's point of view as a noematic (sense) structure' without sacrificing otherness and thus 'finally realizing the "world-noemata" are of one and the same world, that the identity of world is one identity in and through these differences' [pp. 1-4].* The uniqueness of Husserlian stance and reduction of other's in Husserlian terminology as noematic structure in a way justifies and naturalizes this inequality. What Mohanty felt strongly was that phenomenology provides a unique ground to overcome relativism of traditions without hurting any tradition [p. 4]. Such a claim of uniquehood of phenomenology and susceptibility of others as—interpretable as 'sense structure' in Husserlian terminology—perhaps eliminates pre-emptively the possible critique of phenomenology by others. With respect to the Indian tradition Mohanty declared that '40 years of preoccupation with Husserlian stance—has helped me to understand and interpret the Indian philosophical tradition—in this case not the other but I myself' [pp. 1-3]. The irony is that the unique stance which transcendental phenomenology gifts him is the very stance he discovers unobtained in the entire Indian philosophical tradition. Implicitly suggesting unobtainability of an autonomous stance in Indian philosophies which can overcome relativism of traditions.

Mohanty singled out two reasons for his totalist insight into Indian philosophy:

(i) The non-availability of a theory of sense (as distinguished from reference), and
(ii) An ontologically oriented mode of thinking [p. 10].

What Husserl had enabled Mohanty to overcome he discovers rampantly present in the entire Indian tradition. Mohanty characterizes various Indian theories of consciousness as—'they oscillate between descriptive psychology and metaphysics of consciousness' [p. 10]. None of these measures up to transcendental constitutive phenomenology 'save possibly certain strand in Buddhist theories' [p. 10]. Husserl spent his life trying precisely to overcome psychologism and metaphysics within the Western tradition. Through the abovementioned move of Mohanty, Husserl's critique of Western philosophy becomes a critique of Indian philosophical tradition as well—a case of straightforward transposition. The ball is left in the Indian court. We shall return to other implications of these notices later. The point being made here is that the inequality in the idea of this conference seems to have rationale suggested by Mohanty and outlined above. The inequality is founded on the alleged uniquehood of the stance of phenomenology which equips it for interpreting *others* in its own terms.

*Page numbers within square brackets refer to the pages of the xeroxed copies of the individual papers circulated in the conference. The papers referred to along with their authors are named in the text and usually square bracket pertains to the paper under discussion or otherwise the paper of an author being referred to.

Naturally, the faith in phenomenology largely remained unquestioned in the conference. No serious critique of phenomenology could be found in the papers presented and the subsequent discussions. Ronald Bruzina's "*Last Philosophy: Ideas of Transcendental Phenomenological Metaphysics—Eugen Fink with Edmund Husserl* 1928-1938" did described an unfulfilled project of Husserl in collaboration with Fink on perennial metaphysical problems of the West. A bit scandalous though, this paper showed how metaphysics was to make a comeback in phenomenology despite its early radical anti-metaphysics attitude. This paper does bring in a mild critique of pure Husserlian phenomenology and its alleged anti-metaphysics pretentions. It was Heidegger's critique of implicit metaphysics in Husserl's phenomenology which had brought back several problems for pure phenomenology as could be seen in Bruzina's paper and also in Thomas K. Seebohm's "*Paradox of Subjectivity and the Idea of Ultimate Grounding in Husserl and Heidegger*". Leaving aside these internal critical problems, phenomenology stood towering above all with the confidence that other systems of philosophy are interpretable in its terms. This attitude is not merely with regard to Indian philosophical systems but even the Western Analytic Philosophy was thought to be interpretable in its terms as was maintained in discussions by Mohanty and Seebohm and was even attempted by Heelan. The universalist stance of pure phenomenology never came up for serious examination, its presuppositions could not be delineated so that they could be shown to withstand criticism. There was a need to deconstruct its hegemonic position, to pronounce its own prejudices and rootedness in Western tradition so that the comparative discourse could even begin. The universalist pretence of phenomenology needed a comparative justification before comparative discourse could be reduced to a mere interpretative discourse on Indian philosophy from the standpoint of pure phenomenology. Even the possibility that there could be a critique of phenomenology from the standpoint of some strands in Indian philosophy was ruled out from this perspective. There could only be the critique of Indian philosophies from the standpoint of phenomenology. The universalistic perspective not only concealed the origin and roots of phenomenology but also its possible critique.

Karl Schuhmann's "*Husserl and Indian Philosophy*" bought out a shoking eurocentric attitude of the founder of phenomenology towards Indian philosophy. For, Husserl thought that the non-European cultures never really installed philosophy [p. 30]. India represented 'only an empirical anthropological type' [p. 20, (*Husserliana VI*, 14)]. He thought it is 'to mistake the meaning of the term, and to tamper with it......if one speaks of Indian and Chinese philosophy and science' [p. 24, (*Husserliana VI*, 331)]. The idea of philosophy as 'self-transparent omniscience in hand' to Husserl was Greek and now merely European. 'Europe aimed at realization of absolute idea, no matter how imperfect and distorted their factual results may be, whereas other cultures, notwithstanding even their most brilliant results, never claimed to be

intrinsically worried by the explicit idea of philosophical omniscience' [p. 24, (*Husserliana VI*, 325)]. 'As animal reason is to human reason, pre-philosophical reason (i.e., Indian thought) is to philosophical reason (European thought)' [p. 38, fn. 88, (*Husserliana, VI*, 338)].* 'Europe or the idea of philosophy is unique in the history of mankind', states Husserl, 'all other groups of mankind are aware of this, notwithstanding their unbroken will to spiritual self-preservation, to Europeanize themselves, whereas we, as long as we understand ourselves properly, would never Indianize ourselves' [p. 25, fn. 89, (*Husserliana, VI*, 320)]. 'The spectacle of the Europeanization of all other cultures bear witness to the fact that European idea of philosophy is of absolute significance for mankind as such' [fn. 89, (*Husserliana, VI*, 14)]. Like Hegel, Husserl had no doubt that Europe has a stance which 'comprehends and cancels other cultures' [fn. 90]. The colonial success was taken as the success of the European idea of philosophy. The very enterprise of 'philosophy' as construed by Husserl seemed to exclude Indian philosophical world. The question remains—Is this exclusion intrinsic to the very enterprise of phenomenology or the eurocentrism in the birth of phenomenology is an incidental/accidental factor owing to essentially contingent factor of colonizer's intoxication? Schuhmann and Mohanty are inclined to take the latter view. Schuhmann himself could not come to attend the conference and his paper was read by Mohanty, who disclosed that his key note paper was basically complementary to Schuhmann's paper. The universalist stance of pure phenomenology could be salvaged out of Husserl's colonial disposition according to Schuhmann [p. 31] as well as Mohanty. Even if salvageability is granted, the non-hegemonic equality in a comparative dialogue does not get established unless the universalist stance of phenomenology is not seriously deconstructed within the Western tradition as well as in accordance with Indian philosophies and shown to be not merely a pretence. Otherwise the comparative discourse would boil down to an effort for working out a case that Indian tradition was also 'philosophical' in Husserlian sense either as 'prescientific philosophy' or even as 'scientific philosophy'. Many of the papers which had some comparative content tried to do just this.

Mohanty was inclined to characterize Indian theories of consciousness as 'prescientific' since in it are found positions oscillating between descriptive psychology and metaphysics of consciousness. Anindita Niyogi Balslev, in "*Analysis of I-Consciousness in the Transcendental Phenomenology and Indian Philosophy*", argued that the treatment of consciousness in Advaita Vedānta, as explicated by Madhusudan Saraswati, cannot be classed as either descriptive psychology or metaphysics of consciousness [p. 13]. Thus indicating that Advaita Vedānta is 'scientific philosophy' in Husserlian sense. She goes further and suggests an interpretation of the Advaitin concept of *adhyāsa-s* as a constitutive principle of Advaitin 'phenomenological egology', an interpreta-

*fn. stands for footnote in the paper being referred to.

tion which is radically at variance from Mohanty's thesis of the absence of the theory of constitution (a significant mark of all 'prescientific philosophies' according to Husserl). The notion of layered *adhyāsa*, starting from *ahaṃkāradhyāsa* to other *adhyāsa-s* is suggested to be similar to I-consciousness in three phenomenological reductions. There is a serious difficulty in interpreting *adhyāsa* as constitutive principle in the Husserlian sense, for, the function of *adhyāsa* has a dual character—of *āvaraṇa śakti* (concealment) and of *vikṣepa śakti* (positing out). It is *āvaraṇa śakti*, the power of concealment, which cannot be understood by interpreting *adhyāsa* as a constitutive principle. *Adhyāsa* is also a concealing principle and would violate self-sufficiency and self-transparency required of the theory of constitution. The premordial unity of concealing and constituting functions in the concept of *adhyāsa* is so central to the tenets of Advaita that abandoning the unity would amount to abandoning Advaita. Anindita's interpretation requires overlooking this very unity in favour of interpreting it as a constitutive principle. The difference between concealing-cum-constituting function and pure constituting function is so stark that even descriptive similarity of *adhyāsa* and the theory of constitution for I-consciousness will be problematic. The Advaitin grounding of *caitanya* (*ahaṃkāra viśiṣṭa*) in *cit* (*Brahmā*) gives *adhyāsa* an altogether different role than the constitutive role of supposedly ungrounded consciousness of Husserlian phenomenology. At variance with the character and function of *adhyāsa* the theory of constitution is construed primarily to avoid such grounding which would necessarily bring in metaphysics in the Western context. The deep dissonance of *adhyāsa* and constitutive principle is further indicated by the fact that the Husserlian concepts of transcendental elements of consciousness (like *noemata* and apodictive givenness in general), arrived through the strategy of bracketing, eiditic and transcendental reductions, are not obtained by Advaita Vedānta. Moreover, where is the neutral hyletic data (static constitutive form) which constitutes object as intentional object for Advaitins? There seems to be a deep cleavage which has been overlooked while suggesting interpretation of *adhyāysa* as mere constitutive principle.

In a comparative discourse it is invariably the difference which is more significant than the similarity since it is the defence of difference which is more pervasive and hence tough and insightful, whereas the thesis on similarity doesn't require pervasive defence and can afford overlooking systemic entailments which go against the thesis. Difference always is more contentful then similarity. Like Anandita's paper several papers dealt with phenomenology and Advaita Vedānta without articulating difference or bringing out comparatively the prejudices of either to face each other. R. Balasubramanian in "*Advaita Vedānta on the Problem of Enworlded Subjectivity*" declared unhesitently that 'Advaita Vedānta may be characterized as "transcendental phenomenology" and "metaphysics of experience" [p. 1]' in the same breath. N.K. Devaraja in '*Self and Freedom: The Vedāntin and Phenomenological Perspectives*" was quite contended with the discovery that the motif of freedom

dominates phenomenologists and all systems of Indian thought [p. 1]. Ramakant Sinari in "*Comments on J.N. Mohanty's 'Phenomenology and Indian Philosophy: The Concept of Rationality'* " did not mind a bad joke—'perhaps Husserl was an *avtāra* of Śaṅkara' [p. 7]. Rejoicing some affinity the two papers of Kalyan Bagchi and Mrinal Kanti Bhadra dealt with phenomenology's interaction with Vedānta as embodied in the thoughts of K.C. Bhattacharya and Kalidas Bhattacharyya respectively.

These papers showed a fairly large scale interest in Advaita Vedānta and phenomenology studied together. Many of these papers used terms like transcendence, transcendent and transcendental vaguely and amorphously even to the extent of loosing comparative ground altogether. Non-exact and near synonymous use of these Western philosophical terms though did sustain a feeble sense of similarity of phenomenology and Advaita but also made the arguments sterile and without force. This was quickly realized and pointed out by the Western phenomenologists.

Interestingly Balasubramanian's paper did pose some serious questions for Husserl's phenomenology from the Advaitin standpoint. He questioned the all pervasive 'intentionality' of consciousness in Husserl's phenomenology on the basis of the nature of consciousness in a dreamless-sleep-state [pp. 10-11]. In this state neither the directedness of consciousness nor the absence of consciousness are present. This as a problem was overlooked and not answered by Western phenomenologists present for the conference. All Indian philosophical systems accept *viṣaya* (content) of *jñāna* (or *vākya* or *buddhi* depending on this or that system) but not object directedness of *ātma* (or *cit*), this emptyly holds even for the *anātmavādina* Buddhist. It is *jñāna* (or *vākya* or *buddhi*) which is being erroneously called consciousness by the Husserlians as in them can be located the thetic act or intentionality involving objects. Husserlian consciousness is always consciousness-of. The Western term consciousness needs to be disambiguited before it can be used in the context of Indian philosophy. Advaita argues for *ātmā* as *śākṣī* (witness) to understand consciousness in dreamless-sleep-state. Other Advaitin arguments for *śākṣitva* being avoidance of the problem of non-identity of ego and consciousness and the logical impossibility of *ātmā* being subject and object in the same cognition such as 'I know I am'. These arguments do indicate non-finality of 'transcendental ego' and suggest that intentionality is not essential (*svābhāvika*), but only adventitious (*aupādhika*) to consciousness [p. 11]. This is a strong claim and Mohanty summarily dismissed it saying that he sees no need to posit Advaitin consciousness in excess of transcendental ego on the basis of sufficiency of Husserlian schema. Mohanty obivously overlooked Balasubramanian's dreamless-sleep-state argument. The counter argument of sufficiency might work as a device to camouflage hegemonic stance and civilisational myopia. Another unanswered querry of Balasubramanian was—How does phenomenology tackle plurality of consciousness? This is a familiar philosophical issues in Indian philosophy but perhaps a non-issue in European

Christian tradition. In fact, comparative discourse truely begins at a point where reflection on why non-issues are issues in one tradition and vice versa is seriously undertaken.

The doctrine of the non-finality of *ātmā* (*anātmavāda*: denial of the ultimate ontic status to *ātmā*) in Buddhist philosophy gives an impression of its affinity to phenomenology. Since in it knowledge cannot be founded on the ground of independently given *ātmā*. Even Mohanty kept this possibility open but not without inhibition [p. 10]. Iso Kern in "*Object, Objective phenomenon and Objectivating act according to the* '*Vijñaptimātratāsiddhi*' *of Xuanzang*" thought that 'occidental phenomenologist......may find here (*vijñanavādin* Buddhist)..."universal" varification of his own insights and he may be stimulated to consider new questions and answers' [p. 1]. He based his analysis on the Chinese commentary of Xuanzang (*chen wei shi lun*) and its super commentary by Kuiji (632-682) on Vasubandhu's *Triṃśika Vijñaptimātratā Siddhi* (Thirty verses on the doctrine of mere consciousness). According to Kern, Xuanzang's analysis of objectivating act (*vijñaptikrīya*) shares with phenomenology the insight into the constitutive character of knowledge and the unacceptability of object separated from or outside of consciousness [pp. 4-8]. Kern finds Xuanzang's notion of *bīja* (contained in the deepest level of consciousness, the eighth consciousness, *alayavijñāna* or *mūlavijñāna*) analogous to Husserl's sedimentations of the history of a given stream of consciousness [p. 7]. Further, the evolution of *bīja* as *hetu pariṇāma* (evolving at the level of cause) and *phalapariṇāma* (evolving at the level of effect: habits etc.) are found to be analogous to Husserl's static constitution (the appearance of the object through the multiplicity of acts) and genetic constitution (becoming of mental habitude) [p. 8]. The shared insights seems to end as soon as situatedness of Xuanzang's analysis in the central notion of *mokṣa* (liberation) and *karma siddhānta* (principle of rebirth) of Buddhists is realized.

The *bīja* in *mūlavijñāna* are of two kinds—(i) *niśyānda* (seeds of similar continuation, i.e., seeds whose causes are similar to their effects like the ones involved in objective cognition, habituation, learning etc.) and (ii) *vipāka* (seeds of different ripening, i.e., seeds whose effects or fruits are different from their causes like the ones which are ivolved in the retribution of our former deeds or even constitution of our physical bodies). These second kind of seeds are *karma bīja*. After death the ego, depending on the kinds of *karma bīja*, constitutes a new body (in next birth) or rather it embodies again accordingly. The cycle of births go on till the ego is dissolved or liberation (*nirvāṇa*) is achieved. Not only the knowledge, the body too is constituted. In fact the doctrine of 'mere consciousness' proposes that there is no radical distinction between knowledge, mental habitude, morality and body. Factuality (like that of body) and morality (like that of deeds) are tied together in *karma bīja*. The fetish with transparent intentionality in phenomenology hardly leaves scope for the coherent philosophy of body and sensory fields (that is, the condition for the possibility of intentionality itself and the particularity of the

hyletic field). This is amply illustrated by the confused paper "*Merleau-Ponty, Transcendental Imagination, and the Body Schema: on the De-lineation of the Visible*". In fact, several 'strange' questions addressed to phenomenologists, whose answers could not even be expected, also illustrate impossibility of the adequate phenomenology of body. Advaitins had asked what happens to transcendental ego at death and after death? Does it die? There was a little feminist querry from Anandita about the gender of transcendental ego.

Iso Kern pleads with phenomenologists to learn from the treasure house of *vijñānavāda*, [p. 12], specially its theory of *karma* seeds to account for phenomena which cannot be tamed by the concept of habitude like possession of a mortal body with the particular sensomotoric mechanism and the particular sensation fields [pp. 10-11]. This suggestion might be enriching for the phenomenologists but won't it really purge transcendental phenomenology beyond recognition? Rather the suggestion pictures *vijñānavāda*, to put it simply, as a kind of pure phenomenology with the added content of *karma siddhānta*. The paper falls short of the analysis of the presuppositions of phenomenology which commit it to the situation of the lack of adequate phenomenology of body. The difference between pure phenomenology and *vijñānavāda* is much more pervasive and deep. Not only is the telos of '*nirvāṇa*' in Buddhism radically different from the telos of 'eidos ego' in phenomenology due to radically distinct dominant teleological currents in Indian and Greco-European civilisations respectively, but also *vijñānavāda* will not find acceptable the apodicticity of passive constitution or the pregivenness with eidetic necessity of passive constitution. The phenomenological neutrality of hyletic data gets questioned as even that is constituted differently by the currency of either same (like humans) or different (like cats and human) *karma śarīra-s*. The hyletic data would be different for worm and for monkey. Even *hetupariṇāma* of *bīja* is not strictly interpretable as static constitution characterizing eidetic necessity which is given apodictically as original evidence. The difference has to do with the Greco-European notion of 'form' which is refounded by pure phenomenology at variance with the classical foundation of 'form' by platonic realism and it is this very notion which is hardly found in Indian philosophies including *vijñānavāda*. The ultimate dispensability of *bīja śarīra* resident in *mūlavijñāna* for the achievement of the desired state of *nirvāṇa* in *vijñānavāda* is equivalent to non-recognition of the apodicticity and self-givenness of the eidos structures in consciousness. Fallability of 'form' must be intrinsic so that room for the ultimate dissolution of *bīja śarīra* is made. This is serious as idealities like proposition, set or turing machine would simply not be constituents given apodictically but only evidenced in consciousness as constituents of *saṃskāra śarīra* prevalent in a particular *saṁskṛti* or civilization. Apodicticity of form, irrespective of its 'cultural' content which Husserlians would happily grant*, is unacceptable to

*One paper exclusively argued for this Husserlian feature in the context of the 'cultural' content of the celebrated 'form' called 'proposition' even when dealing with scientific subject-

vijñānavādins and would be naturalized by them as a civilisational faith that constituted Greco-European theoretical endeavour.

This brings us back to the issue of prejudices, presuppositions of pure phenomenology and its rootedness in Greco-European civilisation. The basic thesis of Husserlian phenomenology rests on the Parmenidian principle of sameness (identity) of being (*einai*) and thinking (*noein*). Parmenidian principle has been variedly interpreted from Plato onwards by various Greco-European philosophers including Husserl and Heidegger to yield philosophical systems which at times appear even as mutually antagonistic systems (like Platonic *vs.* Husserlian or even Heideggerian *vs.* 'metaphysics of presence' which includes Platonic and Husserlian systems). Two papers explicitly dealt with Husserlian interpretation of Parmenidian principle though in two altogether different contexts.

Patrick A. Heelan's "*Experiment and the 'Fulfilment' of Theory*" invoked phenomenological intrepretation of Parmenidian principle to fruitfully extend the scope of phenomenological inquiry into a challenging traditional domain of Western analytical philosophy, namely, theory-experiment relation in quantum mechanics and other areas of modern science. Paulos Mar Gregorios' "*Phenomenology and the Transcendent: which way does one Transcend*?" singled out Husserlian interpretation of Parmenidian principle to pick fault with Husserl and finds Dignāga and Heidegger not committing the same error.

Husserl uses two concepts to understand phenomenon, namely, *noema* and *noesis*. *Noema* are objects that obtains in consciousness and *noesis* is the intentional agency, the *thetic* or projecting process that actively appropriates or explores noematic structure of the object. The match of the two, *noema-noesis*, is fundamental for the phenomenological investigation of *noemata* through the study of corresponding *noeses*. This very match is impregnated with undefended, pre-judged, presupposition of 'presuppositionless' phenomenology, namely the reincarnation of Parmenidian metaphysical principle. Heelan while investigating scientific phenomenon renders the match mathematically as 'common abstract transformation group' between objective invariance of *noema* and subjective invariance of *noesis* [pp. 4-5]. Any object, for instance my pen, reveals various profiles while undergoing translation and rotation, similarly I get various perspectival profiles through translation and rotation of the agency, i.e., me—both processes emulate ('represent' in the mathematical sense) the invariant of a common abstract transformation group

matters. Lester Embree's move in "*Human Scientific Propositions*" is to suggest that the form of proposition is self-given but its objects are cultural or human even for scientific propositions. That 'a cultural object is not a natural object with something added. Rather a natural object is a cultural object with something substracted' [p. 7]. But, what is a ground for not considering 'proposition' itself as a civilizational object and not mutilating other cultures as a conglomerate of 'cultural objects' of propositions.

[p. 4].* The invariant of a common abstract transformation group represents Parmenidian identity. But what is a surety that such a common abstract transformation group exists for various *noema/noesis* pair or that Parmenidian principle holds in such an interpretation. For instance, temporal transformations would violate the match though for spatial transformation the match might generally hold. Abstract transformation group cannot be formulated in the case of temporal transformation because self-identity of *noemata* cannot be sustained through temporal transformations. Temporality is deeply antithetical to 'form' as such and the idea of 'form' is uniquely founded on the interpretations of Parmenidian principle. Husserlian temporality as a residuum of transcendental ego is operative though not at the level of the match of *noemata* and *noesis* where only the interpretation of Parmenidian principle operates. The point here is that Parmenidian principle is tacitly presumed in Heelen's extention of pure phenomenology and discloses its Greco-European rootedness and moreover its defence is never proposed which is bound to be a metaphysical justification of the civilization faith in the principle.

Mar Gregorios is critical of Husserlian interpretation of Parmenidian principle on the ground that presence of inexhaustible fund of *noemata* in consciousness is not apodictically self-evident [p. 7] and since it is eidetic its correspondence with *reell* object is questionable and undefended. He particularly picks up as an instance the *noema* of God [p. 11] which according to Husserl is 'the ideal representative of absolute knowledge' (Husserl, *Ideas*, p. 418) and has to be structurally same as knowing man or transcendental subject. The givenness through appearances of the *noema* of God as 'idealised human being' is doubtful and equally doubtful is ascribing to it apodictic self-evidence. Gregorios suggets that it is Husserl's fetish with 'givenness through appearances' which restricts his transcendentalism or whatever he is able to arrive at through the three otherwise impressive methodological reductions, including his idea of God. That, Husserl's method is incapable of apprehending the radically transcendent [p. 12], namely, the point where consciousness as consciousness-of is itself transcended [p. 14], such as the state of *nirvāṇa* or *mokṣa*. This collaborates well with Balasubrahmanian's point about non-finality of transcendental ego.

Husserlian fetish with appearances ('presence') is founded on the assumption that the *reell* object has the same structural composition as eidetic or noematic object [p. 16]. The fetish follows from Husserl's own tacit assumption of Parmenidian principle. *Noema* is composed of a nucleus 'x' around which is clustered certain predicates or properties or qualities. *Reell* object is also composed of nucleus 'x' holding together certain predicates. Nucleus of *noemata* and *reell* might be different but since meaning and content only

*Recent Western research in computer vision, e.g., David Marr's, [fn. 7] tries to emulate vision with algorithms which stand for such abstract transformation group.

deal with predicates the thetic or intentional act intuits whole meaning of the external object in terms of its set of predicates as given in *noemata*. Husserl calls both nuclei an 'empty x' [p. 10]. Through this move the identity of thinking and being is refounded. This is where Parmenidian principle is assumed. Through this move the identity of eidetic *noemata* and *reell* is tacitly upheld. This identity forces down the conception of *noemata* as a bundle of *all* meanings copulated to the nucleus and given at once, though a particular thetic act might evidence only a perspectival sense of an object at a time. The perspectival sense in a particular thetic act is resolvable through an abstract transformations covering *all* possible perspectives as complete meaning or as *noema*. The identity of structural composition of *reell* and *noemata* founds perspectival appearances as sense structure and in return is founded all givenness through appearances. The reduction of consciousness as consciousness-of is possible through a tacit reductive identity of structural composition of *reell* and *noemata*. The difference between the site of the nucleus of *reell* and *noemata* is declared irrelevant in terms of meaning or rather as fundamentally contentless by using the reductive device of Parmenidian identity.

Grogorios cites Dignāga's (5th century A.D.) view on *pratyakṣa* (sense perception) and *anumāna* (inference) from *Pramāṇa Samuccaya* to contest Husserlian interpretation of reductive Parmenidian principle which according to Dignāga would be based on *adhyavasāya* or false identification [p. 19]. Dignāga makes a radical distinction between *vastu* or real externality, which activates sense-impression, and cognition, which is construed in accordance with the *karma* (*vāsanā*) *śarīra*. The *vastu* itself has its own *svalakṣaṇa*, it is a unique particular distinct from everything else (*sarvato-vyāvṛtta*), a momentary point instant (*kṣaṇika*) without extention or duration, and is beyond qualificand-qualification relation (*viśeṣya-viśeṣaṇa-bhāvanāvagāhi*). Whereas cognition construes universals, objects and complex of relations through inferential procedure. *Reell* object has neither nucleus nor qualifying predicates [p. 19]. The Parmenidian identity will not simply hold or rather will not be intelligible at all except as a mistake. Dignāga's approach presents one instance from Indian philosophical tradition which defies Parmenidian reductive prejudice. Such a defiance can be witnessed abundantly present in the Indian philosophical tradition. How can such prejudices be pivotal for interpreting Indian philosophical systems, as is proposed in the original conception of this conference.

Mar Gregorios has drawn much of his critique of Husserl from Heidegger, a rebellious student of Husserl and an irritant for Husserlians. Heidegger perhaps is an only celebrated Western thinkers who has developed (in his *Identity and Difference*) a radical critique of the identity of being and thinking as is epitomised in the various interpretations of the Parmenidian principle since Plato. He has clubbed all these attempts including Husserl's as 'metaphysics of presence'. Heidegger's original insight is that the identity of being and thinking conceals the origin of or disclosure of being as well as thinking.

The identity leads to the fetish with beings forgetting the arrival of beings or the difference of Being and beings as the difference of unconcealing (overwhelming) and presence (arrival). The fetish with presence or at once givenness of the entirety of beings in one way or other would warrant a construction of defence for concealed origin of beings and such artificial defences are 'metaphysics of presence'. The prejudice of identity of being and thinking in one form or other stems from overlooking of the 'ontological difference' between Being and beings. Presence of the fund of *noemata* to make possible the thetic act is one instance of overlooking and the givenness of *noema* in appearances is another instance of overlooking and both arise from the prejudice of 'presence' founded through the identity of being and thinking. Jacques Derrida is a contemporary Western thinker who has extended this Heideggerian insight to focus on the fallacy of 'presence' as embodied in the root notion of 'form' as such. The rootedness of transcendental phenomenology in the Western civilizational faith on the identity of being and thinking and defiance of this faith in the Indian philosophical systems does not really imply much about philosophical affinity between say Heidegger (who also defies this faith) and Dignāga as is concluded by Mar Gregorios [p. 19]. In fact such foregrounding of assumptions is only the beginning of comparative inquiry.

Heidegger's reinterpretation of Parmenidian principle (in his *Identity and Difference*, p. 27) by introducing 'ontological difference' between Being and beings does lead him out of the closure of 'presence' but still confines him within the systemic domain of the third person temporally indefinite Greek verb *on* ('to be') and its synonyms. This verb *on* still remains as a secure fulcrum in which is delimited thinking as well as reality as *on-to-logy* with the charged punch of 'difference (ontological)' in its belly. The difference being a matter of singular and plural nominalized form of Indo-Greek root √*as*-, 'to be', and its synonyms. This insightful 'difference' is a result of Heidegger's emphasis on the active sense of infinitive 'to be'. Heidegger's etymological equipment is so narrow compared to Yāska's (6th cent. B.C. etymologist regarded as authority in Indian tradition) that he is not able to recognize opposition of √*bhu*- (*bhāva*: happening, becoming) and √*as*- (*sattā*: being) (*Nirukta* 1.1.7) and instead seeks its shadow as opposition between *to eon* (the Being) and *esti outo* (what is there as same, self-identical or being). According to Yāska (*Nirukta* 1.2) *asti* (being) is only one of the *vikāra* (modification or expression) of *bhāva* among the six *vikāra-s* and if inflated as a philosophical pivot (as in *on-to-logy*) it would play a role of concealment of *bhāva pradhānatā* (primacy of *bhāva*) and its other modifications. It will not only fatally restrict the apparatus of verbs as such in analysis (most stark and extreme example is that of modern formal languages) but also would not be able to decisively deconstruct concealment of *bhāva*. Yāska's insightful distinction between *bhāva* and *asti* impinges directly on the alleged self-sufficiency and autonomy of the apparatus of *asti* thus decisively separating the appara-

tus of most of verbs from that of *asti*. In this sense the narrowness of Heidegger's enterprise lies in his not being able to rise above the apparatus of Greek verb *on* (and its synonyms) and settles with restricted clearance of 'presence' and as a result ends up in a discourse of withdrawal and dispossession enveloped within the civilisational moorings of the Greco-Europeans. True, Heidegger's deconstructive conversation with the Greco-European tradition helps demonstrate certain limits of the Greco-European tradition including that of Husserl but he offers little by way of changing the destiny of the same tradition.

There can hardly be a serious philosophical affinity between Heidegger and Dignāga given Heideggerian faith in the apparatus of verb *on* and Dignāga's preoccupation with the apparatus of the verbal root √*ma*- (measuring, knowing) (as in *pramāṇa, pramā, prameya, anumāna* etc.) with full background of Indian linguistic equipment and philosophy. This is significant as it is Dignāga who foregrounds the complex problematic of *pramāṇa* (authentic means of knowledge acquisition) in the Indian philosophical tradition, a problematic so foreign to Greco-European *on-to-logism* and within it the embedded epistemic problematic. *On-to-logising* (attempting systematisation of beings) is deeply divorced from Dignāga's project of demarcating authentic and errorful knowledge to pave way primarily for the mindful righteous action (*dharma*) and for the ultimate quest of *nirvāṇa*. The difference between the two thinkers would be most naked if weighed for their views on *puruṣārtha* (quest of life) and can be seen pervading all through their analytical equipment and the way they punctuate philosophical issues. And above all what will not be acceptable at all to Dignāga is the Parmenidian principle even in the way it is reinterpreted by Heidegger, that is—'For the same, perceiving (thinking) as well as being' (the famous fragment of Parmenides as rendered on p. 27, *Identity and Difference*); implying that the identity of thinking and being is fundamentally punctuated by the difference from Being. The difference within the womb of identity is unacceptable, for, Dignāga regards *kṣaṇikatva* of reality as radically distinct, absolutely non-identical, from the internally cognized form of perception (thinking) as is even acknowledged by Gregorios. Though Heidegger is able to provide a sound critique of the identity of being and thinking but his own reinterpretation of Parmenidian principle, based on the faith in the philosophical potency of the verb *on* ('to be'), does not equip him to clear the web of 'presence' positively. He still remains within the opaque limits of Greco-European rationality woven around the verb *on* and its systematization as *on-to-logy*. Reasons for Dignāga's non-acceptance of Parmenidian principle hold even for the Heideggerian reinterpretation because *vastu* remains radically external to thinking even with its alleged falling apart structure of disclosure.

At this point we would return to Mohanty's insights into Indian philosophical tradition (*sic*. the concept of rationality) leaving aside his questionable pretence of a universalist stance gifted by transcendental phenomenology.

If we accept Parmenidian principle as a civilizational faith several key notions, concepts, dichotomies perennially present in the Greco-European tradition seems to follow naturally. Foremost, the hegemony of the system of verb 'to be' for the philosophical resolution of human situations is a straightforward outcome. This disposition is not to be misunderstood to conclude its absence in the so-called 'ontologyfree phenomenology'. The term *on-to-logy* in our usage (which we believe is an insightful usage) is to be understood in the strict context of Parmenidian principle along with various meanings of 'to be' such as existential, copulative, veridical, judicative or even active sense.* Positing of a fund of *noemata* even as idealities or irrealities betrays pressing *on-to-logical* (*on* is to be understood in judicative sense) requirement stemming out of Husserlian interpretation of reductive Parmenidian principle. It is simply a result of *on-to-logizing* (judicative *ontic* systematization) of experience with the device of three methodological reductions to yield a self-transparent theory of constitution. It is judicative *on-to-logy* of apodictive givenness which forms elements of the theory of constitution. Parmenidian principle is essentially an *on-to-logizing* principle and it invariably functions as a device for reductively resolving experience in systematizations woven around the verb *on*. The notion of a pure 'form' directly precipitates in various *on-to-logizing* interpretations of Parmenidian principle as can be witnessed in the thoughts of Greco-European luminaries right from Plato, Euclid, Aristotle, Augustine to medieval and modern European thinkers including Husserl. Derrida following Heidegger has come quite close to demonstrating essential nexus between the notion of form and Parmenidian principle (e.g., in his *Margins of Philosophy*, p. 182). The pervasive intrusion and working of Parmenidian principle in the Greco-European civilization has not yet been determinately foregrounded but for the purpose of this essay we would dwell on some relevant decisive consequences which follow from it.

It is the reductivism of Parmenidian principle which splits up relations as *de re* (causal) and *de dicto* (logical) in a residual and irreconcilable fashion. It is no wonder that Mohanty finds while dealing with *pramāṇa śāstra*—'It appears, then, as though these thinkers (Indians) solved the problem that has led to much quandery in Western thinking' the problem namely, of, how to relate the two spaces—the causal space and the logical space' [p. 5]. It needs to be added that this 'problem' was never discovered or never was the need felt to articulate it in Indian tradition precisely because Parmenidian principle was never presented as a philosophical dogma so there arises no question of Indians solving this 'problem'. Rather one can witness abundantly the redundancy of this 'problem' in various schools of philosophy in the Indian tradition. In the next sentence Mohanty insightfully declares that this is a

*Some of the meanings of the verb 'to be' can be illustrated as :—existential as in 'world *is*', 'objects *are*'; copulative as in 'a *is* b'; veridical as in 'a *is* true'; judicative as in 'such *ought to be* the case'; or even active sense of 'coming *to be*'.

'fundamental difference between Husserlian thinking and Indian philosophy'. This difference is not merely with Husserlian thinking but with the larger Greco-European tradition of epistemology and logic. The pertinent issue which awaits resolution is—does *pramāṇa śāstra* 'limit the ideality of the logical and the contingency of the causal' [p. 11] in a detrimental way, a way which leads to inaction or harmful action or that *pramāṇa śāstra* is gifted with prior resolution of the Greco-European empasse avoiding detrimental actions resulting from the runaway idealities or fetishised contingencies.

The notice of the absence of schism between logical and causal is related to other notices from Western perspective about Indian philosophy, namely, absence of the idea of proposition, absence of the distinction between truth and validity, absence of the distinction between sense and reference, absence of the distinction between contingent and necessary, absence of deductive inference, absence of the theory of modalities, absence of formal logic etc. Most of these notices are cited in Mohanty's keynote paper on rationality. They can be reduced to the thesis of absence of the notion of pure 'form' in Indian intellectual endeavours. But that apart, these notices are significant in comparative discourse. These notices are negative in the sense that they point towards absence in the Indian tradition of certain distinctions and concepts which occupy central position in Greco-Europeans theoretical endeavours. There is very little scholarship which strives to bring out the opposite, that is, the negative notices about the Greco-European tradition from the perspective of the Indian tradition. Mohanty hardly tries to articulate such counter notices. In this situation the negative notices from the Western perspective can easily turn into hegemonic positive value judgments regarding handicap of the Indian tradition.

When Mohanty says that 'their (Indian) theory of meaning being generally speaking of referential theory (except the *apoha* theory and some version of *sphoṭa* theory)' [p. 7] he has already trespassed the import of the negative notice about absence of the distinction between sense and reference [p. 10]. The Fregeian distinction between sense and reference, between F and x of a proposition F(x) is originally situated within the formal concept of proposition (a result of a refinement of Aristotelian copulated proposition by Port Royal logicians). The meaning would deal only with predication F or sense. Husserl is able to reduce the importance of the Aristotelian disjunction between predicate and object by making the object empty with the device of *noemata*, Parmenidian principle and thetic act and thus focusing on the sense structure or meaning. Mohanty's pride in Husserlian theory of meaning or sense (as distinct from reference) makes him overlook the presumed concept of proposition and Parmenidian principle within which the distinction between sense theory or reference theory of meaning can hold. To classify most of the Indian theories of meaning as referential theories and others as questioning the concept of reference is artificial knowing that the background concept of proposition and Parmenidian principle is not there in them.

Vyākaraṇa tradition, which accepts *bhāva pradhānatā* or centrality of verb in a unit of cognition, defies object predicate distinction and moreover referentiality of verb is a contradiction in terms. How is theory of meaning in *Vyākaraṇa* tradition (including *sphoṭa* theory) classifiable as sense theory or reference theory defies imagination. Same is the case with *Mīmāṃsā* tradition which accepts centrality of verbal ending or *bhāvanā pradhānatā*. Classically in West referential theory of meaning would be a theory of names and classes to which pronouns refer. In that sense one could loosely call *apoha* theory as nominalist since each entity is contructed through infinitary distancing from the rest and this procedural syntax can be called naming syntax. Even the compatibility of entities as entity (e.g., sentence) is constructed through the same syntax. Such an interpretation would indicate that *apoha* theory is a nominalist theory and hence a referential theory rather than a sense theory. Moreover, *apoha* syntax does not yield a privileged form of proposition so that one could locate referential or sense component of meaning. Besides, we have seen earlier that Buddhist do not accept Parmenidian principle with the help of which Husserl could delineate sense structure from what popularly is understood as referential meaning. Buddhist belief in *kṣaṇikatva* of external reality gives the impression that *apoha* meanings are constructions in the sense of predications and hence the *apoha* theory is a sense theory of meaning. The point being made here is that the distinction between sense and reference and its background apparatus provides only an underdeterminate criteria for classifying Indian theories of meaning as sense or reference theories. Such underdeterminate criteria will not be able to yield a determinate understanding or interpretation of Indian theories of meaning.

Another strong comment which Mohanty makes about Indian philosophical tradition is its 'ontologically oriented mode of thinking' [p. 10]. This comment is a positive judgemental variant of the negative notice of the absence of transcendental constitutive phenomenology. The term ontology is used by him in the sense of the theory of thing itself and as opposed to the theory of constitution of sense. The morpheme *on* of *on-to-logy* is taken in its restricted existential meaning. Such a usage unables Mohanty to camouflage judicative ontology in pure phenomenology (for instance, that of *noemata* and apodictive givenness in general) and makes it a polemical term of pure phenomenology for distancing itself from other philosophies. That is why the phrase 'ontologically oriented mode of thinking' is bound to inhere an ambiguous sense though its counterposition as a self-emage of phenomenology would have an exact sense. We have used the term 'ontology' in the determinate context of Parmenidian principle. This we believe has historical and philosophical merit. In our sense of the term there is no question of 'ontologically oriented mode of thinking' in Indian philosophical tradition. Our usage of the term is narrow but determinate compared to the popular usage of the term. If *on* is to be taken in its existential sense alone then ontology would be a theory of the objects of proposition or a theory of the

referents of predicates or sense. Then the sense of the term ontology would be still narrower but determinate and a species within our usage of the term ontology and also phenomenology could be called ontologyfree since existential object is made empty by phenomenology. In this later sense the phrase 'ontologically oriented mode of thinking' would delimit hardly any fragment of Indian philosophical tradition. For, nor the theory of *padārtha-s* of Vaiśeṣika-Nyaya, nor the theory of *tattva-s* of Sāṅkhya-Yoga, nor the theory of *dravya-paryāya* of Jaina darśana would qualify as ontologies since they do not constitute the theory of referents of predicates. Rather they implicate predicates within their structure or more exactly they defy the idea of proposition as objects being copulated with meaning or sense. They are simply not the theories of beings known through the authority (copulative, judicative or other) of verb *on* and its synonyms.

Another comment which Mohanty makes on the authority of sense reference distinction is about *śabda pramāṇa* [pp. 15-17]. In the theory of *śabda pramāṇa*, sense, as grasped in understanding the utterance of others, is taken as amounting to knowing that something is the case, which is a matter of reference since it is reference which is grasped in knowing as distinct from mere understanding [p. 16]. This violation of sense reference distinction, which after all even Mohanty has to acknowledge, sustains a modernist impression that 'at worst it (the theory of *śabda pramāṇa*) appears to be a device to justify scriptures, at its best it amounts to stopping the process of critical enquiry by appealing to the competence, and noble intentions, of speaker or of the author' [p. 15]. It is here that matters turn out to be political. If one accepts the authority of sense reference distinction and its presuppositions one can force interpretation of others accordingly through an intellectual exercise but if the authority of the distinction is seen to be violated then the terms of discourse overtly become political. Here Mohanty takes an unexpected turn. After all *śabda pramāṇa* deals with matters moral, political and spiritual and not merely empirical matters. Moral rules are learnt 'only through reading/hearing and interpreting verbal instructions'. Even 'if an accepted set of moral rules is given up, it is given up by imbibing another set of moral rules on the basis of another set of verbal instructions. In this case *śabda* amends *śabda*, much as perceptual error is corrected by another perception' [p. 17]. In this moment of faltering authority of pure phenomenology Mohanty wonders: 'whether we need to distinguish between sense (which is grasped in mere understanding of a sentence) and reference (which is grasped in knowing), there are domains such as moral rules where it is through interpreting linguistic discourse (and not through any further empirical verification) that one determines what one ought or ought not to do' [p. 16]. Sense reference distinction with its defensive peraphernalia seems to be faltering and Mohanty conveniently invokes authority of hermeneutic phenomenology to deal with *śabda* and recalls the ultimate hermeneutical either/or to make a point that text does not have a monolithic interpretation but leaves room for

interpretative differences as well as for new possibilities of interpretation. This again leads to reductive interpretation of the import of *śabda pramāṇa* based on the authority of current Western concern of hermeneutics. Drive for reductive domestication of *śabda pramāṇa* in accordance with Hermeneutic phenomenology betrays again the civilizational faith as understandable violation of the sense-reference distinction by the theory of *śabda pramāṇa* is not taken as evidence for launching a critical programme for thematizing limits of Greco-European rationality but instead Mohanty proposes two interrelated programmes for re-examination of Indian philosophy.

Before we come back to delimiting the rational of Mohanty's proposals we would refer to J.L. Mehta's "*Reading the Ṛgveda: A Phenomenological essay*", as he also invokes authority of modern Western hermeneutics in an attempt to 'interpret' the 'text' of *Ṛgveda*. According to him in India the 'exegesis was from the beginning geared to the perspective of the *use* of the vedic *mantra* for ritual purpose, without much concern for the understanding of the text by itself, as autonomous and constituting a coherent world of meanings' [p. 24]. *Ṛgveda* in the tradition was never 'read' but *used* is his claim. With modern Hermeneutics the time has come to 'read' the *Ṛgveda Saṃhitā*. Mehta tries to give a Heideggerian (inspired also by Gadamer and Ricour) 'reading' of *Ṛgveda* 'text'. Mehta makes an interesting critique of Lüder's interpretation of *ṛtā* as 'truth' since according to his analysis it amounts to a hegemonic interpretation based on the correspondence theory of truth presupposed in Western metaphysical tradition and instead he proposes an equally questionable interpretation of *ṛtā* as *aletheia* (personified Goddess of truth in Parmenides' poem) in the technical sense of Heidegger [p. 25]. Important is the wedge he attempts to draw between action, reduced by him as *use*, and interpretation. Oblivious of the *Mīmāṃsā* tradition of exegeses based on actional theory of interpretation he dogmatically accepts the wedge without even caring to defend it or to criticize *Mīmāṃsā*. The artificiality of the wedge merely mystifies the relation of authority with interpretation and action and allows one to indulge in an interpretative game with biginnings and ends mystified and thus follows *de fecto* acceptance of hegemonic interpretative authority. The question of authority is significant and any comparative endeavour must *ab initio* come to terms with it, otherwise it is the hegemonic authority which would fatally limit the endeavour. It is to the question of authority as such that we would turn now.

More significant than the comments and notices of Mohanty are the two interrelated proposals he advances as philosophical tasks for Indian philosophy. These are:

(1) 'One cannot *prima facie* rule out *śabda*, but has to question, from within the tradition of Indian philosophy if it deserves a place in the list of *pramāṇa-s*' [p. 16];
(2) 'The laying bare of the rationality of our (Indian) beliefs and cognition, of

moral rules and artistic creations, confronts, in Indian thought, an absolute limit. The *pramāṇa-s* "establish" them, the consciousness evidences this act of establishment, but the judicative authority of the *pramāṇa-s* is not, and cannot be traced back to their origin to the structure of that consciousness. What, then, is the source of their authority?' [p. 19]. 'Wherefrom does a school, Nyāya or Sāṁkhya or Vedānta or any other, derive its basic concepts, its list of *pramāṇa-s* which it so vehemently defends?... This limit to rationality was operative but never thematized by the philosophers. Now is the occasion to thematize it, and thereby to press relentlessly towards the ground that supports the alternate conceptualisations' [p. 20].

Both these projects deal with the nature of *śabda*. It is in the domain of *śabda* that the issues of authority are located in Indian philosophies. On the one hand the opacity is encountered when source of judicative authority of *pramāṇa-s* is sought, on the other hand *śabda* is assigned the status of *pramāṇa*. There is this apparent circularity which makes Indian philosophical tradition apparently opaque. Both projects suggested by Mohanty are construed around the same plea—to thematize this opacity and transgress such opaque limits. The opacity has to be understood in contradistinction from what Husserl called 'self-transparent omniscience in hand'. The plea is to regain hermeneutic transparency by foregrounding the original text (the source of authority) from where interpretative departures, as supposedly epitomized in classical Indian philosophical schools, can be understood and further fresh departures can be construed. Perhaps non-accessibility of such a transparent text is the reason that philosophical enterprise as an interpretative enterprise in a Western sense is not yet instituted in India. There is a hermeneutical disposition involved in the plea to deconstruct ascribed opacity of Indian 'rationality' and towards this disposition we turn now.

The Greco-European philosophical tradition is endowed with this transparency as its root text, though dispersed in the Greek philosophical corpus or the Biblical corpus, is nonetheless sufficiently illuminated with philosophical issues and possibilities perennially being addressed and interpreted in the Greco-European tradition. It is this transparency which bestows such a pan-historical confidence in Western philosophers that Hegel could confidently declare his philosophy as the last philosophy, as the fulfilment of the original text or Husserl could declare that with him ends the era of pre-scientific philosophy and that his is the first philosophy or even Heidegger could declare end of metaphysics and the beginning of true thinking with his philosophy. Similar attitude can be traced even in Newton or even in Marx. All these thinkers could make such pronouncements solely on the basis of the transparency of the Greco-European root text and they could confidently declare their own departures as final departures, as the final fulfilment of the text or the original enterprise of 'philosophy' as inaugurated by the Greco-European

civilization. Such pronouncements, though to ordinary Indians look dramatic and surprising, are not incidental but derive from the genuine sense of fulfilment of the Greco-European text. For each of these thinkers all earlier philosophical endeavours in their tradition prior to their decisive intervention were mistaken· interpretation of the text. For instance, Husserl reads the root authoritative text of Greco-European civilization as 'presuppositionless self-transparent omniscience in hand' and to fulfil it in phenomenology he borrows the fragments of his technical apparatus from various mistaken (partial) interpretative illuminations of the text of Greco-European civilization. Such a hermeneutical disposition, rampantly present in the history of Greco-European civilisation, seems to presume an authoritative commending text that fixes the quest and which is rationally interpretable and around which is involuted the quest of philosophy as instituted in the Greco-European civilization. Projects suggested by Mohanty stem out of the appraisal of Indian philosophy from such a hermeneutical disposition.

The above outlined Greco-European hermeneutical disposition is rooted in the *thesis of beginning* in the sense of a historical project as well as in the *thesis of end* in the sense of a finally fulfilled authoritative text. It radicalizes into the ultimate either/or the unity of *arché* and *telos*, thus localizing surd within the horizon of self-transparent rationality. This *ādi-anta bhāva* as a civilizational disposition can be counterposed to *anādi-ananta bhāva* (beginningless-endless disposition) as a civilizational disposition which posits no self-transparent ratiocinated horizon. *Ādi-anta* disposition can situate judicative authority in the original self-transparent text (*arché*) but what does it mean to found authority in the tradition which internalizes no beginning and no end and thus radicalizes means as determinate and non-surdical. I think this is a basic question which provides an entry into the world of Indian philosophies and perhaps other non-Greco-European philosophies. If there is no beginning and no end what would be the purpose of life (or for that matter even that of *sṛṣṭi*) or on what ground would the manners and morals be instituted or on what fulcrum would rest the possibility of determinate action or how could surety in knowledge be founded. How can authority be founded on surd, on grounds devoid of rational horizon. Will not such an authority be tyrannical? Will not determinateness, definitiveness, security and directedness (purpose) crumble up in the womb of beginningless-endless disposition. Will it not mean the return of *apeiron* (infinite, crooked, indefinite) so dreaded by the Greek philosophers. How these querries are resolved in various ways can be witnessed in sophistications and subtleties of Indian philosophies and in simplicity of life as instituted in Indian civilization. But Indian civilization does not offer an origin, the text, an *ab initio* ground for rational resolution of life, given its *anādi-ananta* disposition. To demand it from the Indian tradition is to foreclose appraisal of Indian philosophy or to force its mutilation.

The Indian notion of *śabda pramāṇa* is of necessity situated within the

anādi-ananta disposition in an attempt to found authority. The *anādi-ananta* disposition is intimately related to the thesis of *anādibandhatva* (beginningless bondage), to the ideal of *mokṣa* or *nirvāṇa* (liberation), to the theory of *karma-siddhānta* and to the notion of *śabda*. These are some of the unique features enshrined in Indian philosophies and must be reackoned with in any comparative endeavour. The appraisal of *śabda pramāṇa* by embedding it in the *ādi-anta* disposition is bound to be a reductive appraisal and will lead to the call for refounding the notion of *śabda* on Western hermeneutical line by purging it of the status of *pramāṇa*.

The *pramāṇatva* of *śabda* directly cuts into the possibility of "self-transparent omniscience in hand" allegedly founded in the root text of Greco-European civilization or in the project of a transparent rational resolution of an *ab initio* ground. It is no wonder that the undercurrent of Husserlian inspiration of Mohanty issues a call for the re-examination of the place of *śabda* in the list of *pramāṇa-s* (*sic.*, 'from within the tradition of Indian philosophy'). For, the rational criteria ('critical norm') of *śabda* amending or correcting *śabda* cannot be founded. For that matter even the rational authority (or self-transparent critical norms) of *pramāṇa-s* in general can also not be instituted. The ultimate dependence of *pramāṇa-s* on their ability to generate successful action (*saphalakriya pravṛttijanakatva*) would lead to opacity if rational resolution of the dependence is sought. *Saphala kriyā* itself is normatively dependent on the judgement about successful result which itself would depend on *dharmārtha*, a matter of *śabda*. These dependencies give the impression of opacity largely because action itself is seen as an opaque boundary of 'rationality' and the theory of 'successful' action as a 'irrational' impossibility, as a surd. The contestable issue is—can these dependencies be rationally resolved to yield a 'self-transparent omniscience in hand' or an authoritative text as demanded by the Greco-European philosophical and hermeneutical tradition. This exactly is the task which Mohanty advances for the contemporary Indian philosophy. Why is it that such a task was never undertaken by the Indian philosophers as is even clearly demanded by Mohanty himself [p. 20]. Could it be that the notion of 'rationality' itself is an ethnocentric notion and cannot be used as a neutral category in a comparative discourse. If the 'ratio-ability' of actions is doubted how can the notion of 'rationality' adjudicate over the claims of a theory of moral action.

What is at stake if *pramāṇatva* of *śabda* is withheld. There are larger issues of civilizational capacity to revitalize its composure which are at stakes. The instituted manners and morals in Indian civilization on the basis of the *śabda pramāṇa* would stand unauthenticated. The authority of civilizational disposition and faith which is philosophically founded through the theory of *śabda pramāṇa* would be nullified. Besides, such a move would mystify the determinate working of authority in general (even authority enshrined and commandeered within the Greco-Eueropean tradition) thus leading to enframing of society through a hegemonic deceit. *Śabda pramāṇa* ensures jural

autonomy of each within *anādi-ananta* disposition which if suspended would lead to either reign of arbitrary positive law hopping from crises to crises in accordance with the will of the sovereign authority or an imposition of text christianized as 'natural' law as a source of authority.

The theory of *śabda pramāṇa* is not merely a device to ensure openety of an interpretative enterprise (the ultimate 'either-or' [p. 20]) but a theory of determinate moral action making possible the quest of life, *puruṣārtha*, embedded within the *anādi-ananta* disposition. The theory of *śabda pramāṇa* within the background of *anādi-ananta* disposition founds authority (jural as well as epistemic) as *apauruṣeya*, as prior to life or constitutive of life or more exactly as primordial disposition of life. The *apauruṣeya śabda* is not a text nor is the enterprise of *Darśana Śāstra* an interpretative enterprise of that text. It is *loka siddha* (established in the people at large) and accessible (as *śruti*, heard) to each *jīva* (life form). It is words of moral authority which might also get codified at times but essentially are housed in the realm of *śruti*. In everyday life it is words of elders, of trusted and dependable persons, of epics, of recalled episodes, of recalled feats. The concept of *apauruṣeya śabda* makes possible understanding of primordial jural situation of life as well as primordial jural disposition of life. The distinction between *dharma-adharma* is founded by *apauruṣeyatva* and is realized in feats or successful actions or *saphala kārya*. All right cognitions or norms of distinction between error free or errorful cognition are eventually resolved in feats as distinct from facts or reasons. Feats provide an ultimate determinate ground of philosophical theories within the *anādi-ananta* disposition. It is in feats that the alleged distinction between knowledge and action resolves. The injunctive force of authentic *śabda* is an essential ingredient of the structure of feat. Without the *paramāṇatva* of *śabda* feat will not be possible as distinction between *dharma* and *adharma* will not be realizable. *Apauruṣeya śruti* founds life's faith in feats in which is resolvable *dharmārtha*, a condition for the ultimate quest of life, *puruṣārtha*. One cannot but more than agree with the final apprehensive words of Mohanty regarding originary ground of Indian philosophies: '... if we can find anything but ... the words of *apauruṣeya śruti*'.

Greco-European image of self-transparent ratio-ability or ratio-cination founded on the authority of verb 'to be' with the help of a reductive device—the Parmenidian identity principle—leads to a residual opacity for the understanding of feat or the theory of feats. One cannot transpose, without a risk of loosing a comparative ground, the idea of ratio-ability and its residual consequences for interpreting other philosophical traditions which did not install or institute self-transparent ratio-ability in their endeavours. The apparent opacity of *śabda pramāṇa* is a result of this transposition, a residual consequence of 'reading' ratio-ability or ratio-cination in the Indian philosophies. Such a transposition would be justified if self-transparent ratio-ability can be shown to be implicitly instituted in Indian philosophies and only in that case definite projects on the basis of its authority can be authen-

tically advanced. On the other hand, there is sufficient *prima facie* ground (given the notices of absence and difference outlined in the essay) to suspect deep problems with the idea of self-transparent ratio-ability from the perspectives of Indian philosophies and to press for a concrete and determinate project to deconstruct the idea in its various ramifications in the Greco-European philosophies. The popular and often enough polymical term 'rationality' needs to be disambiguited by foregrounding its prejudgements, presuppositions and supportive paraphernalia so that the authenticity of its transposition can at least be evaluated and moreover, if need be, its absolutist features or limits can be delineated. In fact, at this juncture, an important task for the Indian philosophical tradition is to develop a stance from within to overcome hegemonic transpositions which invariably leads to residual relativism. To develop such a stance will require domestication of major section of the Greco-European philosophies. A task which requires development of their critique and appropriation of their absolutist features, limits and horizon from the standpoints of Indian philosophies. Only such a task would open the possibility of non-hegemonic discourse across traditions. The successful feats in logic and mathematics founded on the Greco-European idea of self-transparent ratio-ability or 'form' will have to be deconstructed in order to advance foundations of logic, linguistics and mathematics from the standpoint of Indian theoretical endeavours.

It is largely a result of current weak political state of Indian philosophies that serious discourse across Indian and Greco-European philosophical traditions does not easily precipitate. Mohanty's defaulted attempt in organizing a dialogue through the theme and instrumentalities of this conference is one episode worth dwelling on largely because in it could be tasted the latest appraisal of Indian philosophies as a whole from the perspectives of contemporary Western philosophy. It at least provided an opportunity to reflect on ways through which comparative discourse can be opened further or ways through which perspectival pitfalls of this conference can be avoided.

The apex moment of the conference was the concluding act when Chairman of CARP, Lester Embree, allegorized Mohanty's role by recalling the small lonely trail which Mohanty had left when years ago he moved from the Indian philosophical world to West and it is the same trail which his Western colleagues have followed back to this conference. Embree was confident that back and forth traffic on the trail would increase day by day and amidst applause he christionized it futuristically as "Mohanty highway". One has to tread cautiously, for, no highway is good if it drains the composure of home.

Churchland and the talking brain*

NIRMALANGSHU MUKHERJI
University of Delhi, Delhi

I

In the space of a single, though large, book Patricia Churchland has been able to cover *almost* everything that needs to be covered in the heady interdisciplinary area comprising the various branches of the neurosciences, issues in the history of epistemology with substantial focus on the philosophies of science and mind, various areas of cognitive science including aspects of theoretical and empirical psychology, several areas of computer science with an extensive discussion of connectionist models. Taking the area as a whole, the 32-page bibliography is one of the richest that I have seen.

It is surprising, therefore, that this extensive coverage has no discussion of linguistics and, in general, almost next-to-nothing on studies on language. In the index, there is no entry either on linguistics or on Chomsky; the bibliography contains just a single, and dated, item from Chomsky. There is no mention of the Chomsky-related works of Eric Lenneberg and George Miller. The entire area of formal approaches to learnability is not mentioned; hence, there is no mention of the pioneering works of Wexler and Culicover and Pinker. This large-scale omission bears significantly on the validity of Churchland's argument. More of that later.

With respect to what Churchland *does* include, it is no mean feat to be able to tell a very long story from Plato to the connectionists with engaging style and scholarship. People from the neurosciences will find the philosophical chapters to be lucid, if a little rushed at some places; similarly, people from the humanities will appreciate the initial chapters on neuroscience since much of the material presented in those pages is not easily available outside the concerned sciences. No specialist will probably find the material on *her* area to be particularly novel; but every specialist will probably find some novelty in the interactions of specialized knowledge that Churchland presents so skillfully.

Yet the book is not designed to be an encyclopaedia. It is not meant to be merely a neutral text-book for the advanced students of the subject (though it can very well be used for that purpose). She has some specific axes to grind and the usefulness of the book must primarily be judged from that point of view.

II

On the concluding page (p. 482), Churchland says that her primary objective

has been to show that neuroscience matters to philosophy. This *very* general claim has been subdivided into the following: (a) mental processes are brain processes, (b) the theoretical framework resulting from a co-evolution of neuroscience and psychology is bound to be superior to folk psychology, and (c) it is most unlikely that we can devise an adequate theory of the mind-brain without knowing in great detail about the structure and organization of nervous system.

How significant are these claims? The general claim is quite trivial since, for all that we know, *everything* matters to philosophy. The sub-claim (c) is tautological: how can we know about the mind-*brain* unless we know a "great deal" about the brain? The sub-claim (b) is methodologically trivial since *any* developed science, (for example, cognitive science) is bound to be superior to common sense. The sub-claim (a) is substantive, but what substance is left to the *literal* Cartesian idea that there is more in the mind than what there is in the brain? There must be more meat in her actual argument than what is too catiously stated at the end.

Let us pre-emptively grant that Churchland's arguments and evidence against the Cartesian substance dualist, a rare species anyway, are successful. To that end, let us grant that most of the conceptual arguments of Descartes, Popper and the like are either highly contentious or circular or downright false, given counter-arguments and data. Let us also grant that the neurosciences are extremely active fields of research *some* of whose results can now be used to address *some* of the psychological issues with *some* degree of success. Yet that cannot be all that Churchland wants to argue.

I believe the work leaves a much larger impression, usually unstated and left as a background, to which a larger part of this notice will be directed. The work leaves the impression that any research programme in psychology which does not already directly take the neurosciences into account is not a scientific programme at all. To this, of course, a lot of people will not agree (even if we ignore the issue of what is it for something to be counted as a science) and that precisely is the interest of Churchland's work.

In the absence of precise statements from Churchland, I could not be more precise about her larger claim and, unfortunately, matters have to be discussed from this vague ground. I feel that anyone aiming for such large claims faces a predicament. Churchland couldn't have claimed that everyone interested in psychological issues should *only* do neuroscience. She doesn't claim that and it would have been preposterous to claim so. She couldn't even have claimed that people are free to develop any kind of psychological models with the restriction that only neuroscientific data count. Yet she wants (and needs) to claim something lot stronger than merely claiming that the neurosciences are advancing rapidly and that people should take notice of that. Given the current intellectual climate, that sort of a claim goes without saying. Given this predicament, it is difficult to see how one could make a statement which is, at once, precise and large. Even then Churchland's underlying larger

claim, vague and impressionistic though it is, is enormously interesting since it has an eager audience.

This audience will readily agree with much of what she has to say against the Cartesian substance dualist, will read her chapters on the neurosciences with interest *and* expectation, will agree with much of the success stories of the neurosciences as described in her book, and will, in general, support her leading idea (i.e., there is nothing in the mind etc.) *without* agreeing with her larger claim. More specifically, this audience is likely to agree with each of the following steps of her argument—steps which cover over three-fourths of the work—without granting the final, implicit, step.

(1) The neurosciences have advanced far enough to be able to say something, in good detail, about actual behaviour, say, the behaviour of the sea hare (p. 71) and the leech (p. 145).

(2) Some of this behaviour may be described not only with the minutest empirical detail but also with abstract principles, e.g., geometrical models (Chapter 10).

(3) Applied to humans, there is a reasonable expectation that such explanations may be available for much of *motor* behaviour, e.g., reflexes.

(4) Many psychological disorders, e.g., some forms of schizophrenia, may have excellent and adequate neurological explanation (pp. 82-88).

(5) The effect of drugs, with the attendant neurochemical explanations, on various mental states are interesting and well-documented (pp. 77-81).

(NOTE: Not surprisingly, Churchland expresses skepticism about the possibilities for large-scale theorizing the moment discussion reaches items such as 3, 4 and 5. Hence, these discussions are much smaller and sketchier than the discussion of, say, action potentials and pathway organization in the nervous system.)

(6) The importance of split-brain studies (pp. 174-92) are undeniable. In particular, the lateralization effects found in various forms of brain conditions do tell us something about the location and distribution of various cognitive functions in the two hemispheres.

(7) Turning to matters philosophical, it is simply implausible that the identity thesis can be ruled out merely on conceptual grounds. Since, via Quine, Sellars and others, there is no priviledged access to introspective states and since, via Kuhn and others, a scientific theory is never falsified by merely attending to 'direct' data, introspective or otherwise, the identity theory must be examined on the usual scientific grounds.

These seven steps consist of the meat of Churchland's argument for the first 350 of the 482-page book. Our audience will readily agree with each of them since none of them are particularly surprising and each of these are largely irrelevant for the view shared by our audience, a view that is quite skeptical of Churchland's larger claim. The grounds for this view are familiar,

but I shall sketch them anyway since I suspect that Churchland has not placed the origins of this view in the correct perspective. Moreover, I need the sketch to prepare for the final step of *my* argument.

III

Up to about the fifties, psychology and philosophy of mind were quite hopelessly caught in an impasse regarding the classical mind/body problem and no solution was in sight. On the one hand, given Darwin and all that, there was no interest left for a fullfledged substance dualism; on the other, despite dramatic advances, the neurosciences and behaviouristic psychology led nowhere with respect to the 'higher cognitive functions' of the human mind. Since the very domain of psychology was so enmeshed with the dark mind/body problem, psychology could not generate an autonomous talk.

Beginning, roughly, with the sixties, many people began to think that the scene was getting at least partly clear for the possibilities for an autonomous theoretical psychology. Variously called "Intentional Psychology", "Folk Psychology", "Cognitive Science", "Computational theory of mind", "Representational theory of mind", "Functionalism" and the like, a new attitude toward the study of human mind emerged. As the various titles partly show, there was no clear unified doctrine over and above a cluster of methodological stances. There was, and still is, much internal dispute concerning individual theoretical claims. What binds the 'new' psychology, however, is an attitude, the attitude of learning *to ignore the mind/body problem*. I am not suggesting that it was ever stated in a manifesto. The attitude was displayed rather in the practice: no clear solution was ever offered to the mind/body problem to the satisfaction of the dualist or the monist, yet psychological research flourished at an unprecedented scale. For the sake of a tag, let us call this emerging paradigm the "Representational Theory of Mind" (RTM) since this tag has been used in an important global critique of the paradigm (Stich 1983).

Two approaches emerged. One approach was to take the mental substrata for granted together with a certain abstract structure for this substrata. The abstract structure consisted of *rules* defined over *representations*. *Then*, it was shown that, given this structure, explanatorily successful theories can be formed for certain domains of cognitive behaviour. Handy historical parallels, such as Newton's postulation of the gravitational field, were recalled. Stringent criteria for explanatory success were invited. If the theory survived, it counted as an evidence that such a structure is indeed a property of the brain. What else could be responsible for the concerned behaviour?

That is what the work of Noam Chomsky on language accomplished for RTM. One may challenge the theory on empirical grounds and, in so challenging, grant a degree of autonomy to the enterprise. While the empirical issues were addressed with due rigour, it was hoped that the conceptual postulates of the theory will become digestible in time. Kuhn and Feyerabend support everyone. It was further hoped that someone in future will tell how the conceptual postulates of the theory link up with the properties of the brain. Keeping the conceptual postulates dangling, RTM (Language) ignored the mind/body problem just as most biologists tend to ignore the nature/nurture problem. In the meantime, people showed their sense of humour by using the unitary notion of mind/body, as Chomsky did, and left matters at that.

The other, more hazardous, approach was to grow impatient and to argue for a more detailed theory of the mind with its attendant concepts and assumptions. It is quite surprising that, given the infancy of the RTM paradigm, this enterprise has already produced a number of classics (Fodor 1975, Pylyshyn 1984)—a fact that tells us something about our intellectual climate. People argued for the difference in 'grain' between psychology and *current* neuroscience which, in turn, suggested that the mental substrata may be instantiated on the brain rather than being identical with it. This idea was developed by drawing a parallel with the software and the hardware of the computer. Finally, it was argued that such a substrata is assumed in much of our common sense psychology anyway and that this 'folk' psychological notion of the mind may be used as a starter to describe the regularities of various cognitive behaviour in an explanatorily interesting way.

Each of these hazardous claims can be, and has been, challenged. Yet, when the merits of the RTM are judged from both the approaches, challenges to the elements of the second will show, at most, that an RTM scientist does not have a clear theory of his own success. Given the degree of autonomy achieved via empirical success, in language theory and elsewhere, there is no good reason why an RTM theorist cannot cheerfully admit his lack of conceptual clarity *while* standing on his ground for now he, like Newton, is armed with a success story.

IV

Immediately following the steps described in (II) above, Churchland devotes a long chapter titled "Functionalist Psychology" where she develops a fairly exhaustive critique of the second approach sketched above. She attacks Fodor, Pylyshyn and a number of other theorists, as did Stich in his (1983). Not all of the arguments are equally convincing, but I will leave the task of finding rejoinders to the RTM ideologues.

My worry is that Churchland did not address the *first* approach at all which is squarely situated within the RTM paradigm, warts and all. If she wants to argue for an alternative paradigm, this time directly involving the brain, she must find some way of explaining (or, explaining *away*) the successes of the existing paradigm. To take a handy precedence, this is what Einstein did for the Newtonian paradigm. She must either deny the success or co-opt the success somehow in her own terms. This she never even tried to face, as

evidenced by my list of omissions mentioned at the outset. I believe that the implications of this point for Churchland's larger claim is far-reaching.

I have already granted a scenario in which an RTM theorist can live with his (alleged) conceptual weaknesses. What are the crucial features of this scenario? (a) The RTM theorist gets to work without waiting for the conceptual issues to be clarified in advance; that has never happened in the history of science. (b) The RTM theorist is not interested in the global and intuitive notion of psychology and psychological states. That is why he readily grants steps such as 3-5 listed in (II). (c) The theorist is interested in a specific cognitive area, the higher cognitive functions, and in clearly identifiable domains within that area. One such domain is the human language ability which is species-specific and which enables the theorist to ask a number of answerable questions without begging the mind/body issue. (d) Certain detailed models of this ability can be formulated with due empirical and formal rigour. (e) Adjacent domains, which seem closely to interact with language, and which seem to have structural similarities with the language domain (though probably only analogically), may then be isolated for similar studies. These will include problem-solving abilities, the ability to form hypotheses, to do mathematics and the like. In sum, the identification of the area of higher cognitive functions is itself a part of the research programme, not some object given in advance. (f) With respect to this area with linguistic ability at its core, only top-down models are of any scientific interest for now, whatever be the underlying conceptual basis for such models (there must be some, otherwise how come they are so successful?).

How can *this* scenario be challenged? With a spade, of course, i.e., by doing interesting science; nothing short of that can count. What will such an alternative interesting science look like?

An alternative science must somehow enter the guarded castle of the RTM, viz., the domain of language, for the RTM enjoys whatever support it does, in ever-expanding circles, around this core. A neuroscientific theory of the human language ability is, then, what Churchland needs to clinch her larger claim.

About the only neuroscientific research on language which Churchland reviews (Item 6 above; see Gardner (1974) for a more extensive popular survey), however, will not do. Split-brain research, I have agreed, does say interesting, sometimes even quite dramatic, things on the localization of linguistic ability. But such research throws hardly any light on the central issue, viz., an *explanation* of such ability. Split-brain research says, at most, things of the following sort: a cognitive capacity C_i is located in the area X_i. Sometimes such descriptions can be finer and more interesting: a sub-capacity S_i of C_i is located in the sub-area Y_i of X_i. Probably one can go finer still. Yet, however fine it goes, it can only keep on describing without explaining the nature of C_i, S_i and so on. Indeed, there is a severe limit even to its descriptive depth in the absence of a theory of the concerned capacity.

Split-brain research looks fascinating to the neuroscientist and the layman partly because of moral and Cartesian hang-ups which, though important, are not under discussion here. The other reason why split-brain research looks interesting is that people *do* have some rudimentary conception of what is to count as a cognitive domain, for example, language. In that sense, the neuroscientist does work with a theory of some sort which is largely shared by the layman as well—probably, a theory to the effect that language is a collection of sound with meanings attached, or some modification thereof for controlled research. Such a theory, even when modified, is very far from, say, Chomsky's theory of language (*grammar*, to be more precise) which, in any of its versions, contains hardly any folk element. So much for Churchland's tirades against folk psychology.

Further, the preceding point relates to the point that Chomsky, Fodor, Pylyshyn and others have pressed vigorously under the rubric 'competence'. These two points are related since the limitations of split-brain research (for the explanatory issue under discussion) is essentially linked to the limitations of the neuroscientist's answer to the question 'What is C_i?' It is very well-known that interesting answers to such questions can be reached only if we are able to focus directly on the concerned cognitive behaviour, say speech, to form some idealized, abstract notion of such behaviour. These idealisations are essential if we are to eliminate the effects of other cognitive systems and various irrelevant factors (performance-factors) from the study. Particular proposals for the notion of competence may be suspect, but the preceding general idea must be available for any interesting research to take shape. Thus, the neuroscientist needs the top-down models of competence for, otherwise, there is nothing *further* for him to look at after his initial cartography. The neuroscientist needs top-down theories; the converse, however, can well be ignored (ignore the issue of 'hardware-constraints', an entirely different matter) since no notion of competence will emerge from simply looking at the brain.

Churchland does say things of the above sort—the co-evolution/complimentarity of cognitive science and neuroscience—in her introduction and elsewhere. But I find no evidence that the importance of these points for her larger claim has been seen.

V

Suppose we tone down Churchland's larger claim. Suppose she gives up the primacy of bottom-up research and settles for true complimentarity tilted for now towards top-down research. What will this stance amount to?

Suppose we take a sample of the kind of work that has been done on language in the RTM/top-down tradition. Among many, three sorts of work stand out, as I listed at the outset. The first sort concerns fairly abstract grammars written for large fragments of a wide variety of languages resulting

in the isolation of some universal principles and constraints which are supposed to be a part of the genetic endowment and, hence, instantiated on the brain from the outset. The second sort, e.g., the work of Wexler and Culicover, concern the computational properties of grammars telling what sort of grammars are likely to be learned by what computational systems. The third sort, e.g., the work of Pinker, studies the learnability principles of some grammars with respect to actual child data. How will the neuroscientist get into this picture?

So far as I know, the preceding research has not yet converged, not the same grammars have been studied from all three different angles. Suppose research does converge (and this is not empty speculation). Suppose then that we have an abstract principle P about which we know almost everything that can be known in the top-down way: we know that it is a universal principle, we know the nature of the system that learns it and the mechanisms of such learning (here we *are* speculating). So we hand this principle over to the neuroscientist. Can he handle it? Can he tell us something to the effect that principle P will be activated just in case such-and-such a cluster of neurons under so-and-so wiring is triggered off by such-and-such a neurochemical?

Nothing is more fantastic and nothing less will count given the current state of top-down research; and *the gulf is increasing*. Cognitive science awaits some dramatic conceptual revolution in the neurosciences. Such a revolution, when it happens, will be recognized at once.

Notes

*Patricia Smith Churchland, *Neurophilosophy: Toward a Unified Science of the Mind/Brain* (Bradford Book, The MIT Press, Cambridge, 1986), pp. xi + 482 + notes, bibliography, index.

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Notes and discussions

Prof. K.J. Shah is a well-known figure among philosophers in contemporary India; his early training in Cambridge, the years he spent as a teacher, his writings and, finally, his active participation in seminars and conferences in the different seats of learning, have made him familiar to a large number of friends and admirers. The paper entitled "Philosophy, religion, morality, spirituality: some issues" (JICPR, Vol. VII, No. 2, January-April 1990) has, to my mind, raised certain issues of great significance. In what follows I have sought to examine some of them.

Shah begins by saying that the views presented in the paper are based on "my understanding". It is not quite clear if Shah would go to the extent of considering this understanding as only one of the several possible 'understandings', or would hold the extreme view that 'his' is the only way of 'understanding' such matters. I doubt if Shah would hold such an extreme view. But even if it is treated only as one of the ways in which these concepts may be understood, there are serious difficulties in accepting what he has said on the subject.

Several modern Indian thinkers who received their initial training in western philosophy, in the universities here or elsewhere, have, of late, sought to delve deep into the traditional Indian thought and have offered fresh interpretations acceptable to the modern mentality. A few have been extremely critical—their number is fast dwindling—while others have sought 'illumination' from the ancient texts and have been eager to draw the sympathetic attention of their celebrated contemporaries in other parts of the world by offering new interpretations of ancient insights. These modern interpreters usually encounter two hindrances. One is the language (in this case it is Sanskrit) in which the traditional texts and their commentaries are available to us and the other is the choice of wading through or keeping away from the numerous traditional commentaries and interpretations. Some modern commentators have chosen to go straight to the original texts avoiding the intricate and tortuous paths paved by the traditional commentators. In a way this spirit of adventure is certainly wholesome. However, very soon they find that the traditional commentaries are unavoidable. The original *sūtras*, condensed and terse, remain obscure until the traditional commentaries have been studied a little more closely.

Not unoften the modern commentators forget that the tradition is replete with debates and controversies. Hence arises the additional need of taking the ancient commentaries more earnestly. One who ignores to take into account these protracted controversies tends to see a seamless continuity where there may not be any, or fail to notice the studied 'systematicity' achieved by systematizers of a later period when 'sampradāyas' had not only proliferated but had taken deep roots.

Shah leaves the Sanskrit terms untranslated. Some of those terms are ancient while others are relatively modern. There may be two reasons why he chose to use those terms. First, the Sanskrit terms do not have words in English which could be said to be equivalent in meaning. This is plausible. The other reason may be that the Sanskrit words have an agreeable overtone of hoariness and convey 'originality' which their corresponding English equivalents, even when they are available don't. The search for roots of ideas with the help of lexical and etymological devices is one thing while their validation or ratification with the scaffoldings of sustained and methodical reasoning is another thing. I am afraid, Shah has failed to notice this distinction sufficiently.

In his paper Shah makes serious efforts to show that 'philosophy, religion, morality and spirituality' must not be viewed as compartmentalized elements but as a capsule, as it were. Beginning with an analysis of certain notions, indigenous to the Sāṁkhya system, he proceeds to show that the notion of '*puruṣārtha*' encapsulates 'philosophy, religion, morality and spirituality'. Shah's analysis begins with the examination of '*viveka*' which, in the Sāṁkhya system, means discrimination between the *Prakṛti* and *Puruṣa* which possess, so to say, diametrically opposed characteristics. *Prakṛti* possesses the three guṇas, is devoid of discrimination, is an object, is general, is unconscious and is generative, while the *Puruṣa* is simply devoid of these characteristics. The word '*viveka*' is also found in the Yoga system where it is used in a slightly different sense, i.e., wisdom (see Yoga sūtras II.15). A person who possesses '*viveka*' sees misery or suffering where others do not see it. In the Upaniṣads *viveka* is found only once (Chānd. Up. 6.9.2) where it simply refers to the ability to discern and nothing more. Having examined the *Sāṁkhya* notion of '*viveka*', Shah proceeds to observe that '*viveka*' has three 'aspects', *anubhava*, *vicāra* and *ācāra*. It is not clear if Shah borrows this approach from the classical commentators, or this is his own way of understanding, '*viveka*'.

It makes sense to say that a person has discernment, but the locutions, 'the person is experiencing discernment' or 'cognising discernment' or even 'acting with discernment' are otiose. 'Acting with discernment' has the overtone of calculation which a person with genuine discernment would naturally spurn. Moreover, if the '*puruṣa*' is neither a *kartā* (agent) nor a '*bhoktā*' (enjoyer) how can there be *anubhava*, *vicāra* and *ācāra*? True discernment, like knowledge, cannot be treated as an instrument or a tool. In fact, Shah himself observes that in the *Sāṅkhya* though "there is no clear account of this experience". Shah refers to Karika 64, but 'nāsmi', 'namē', and 'nāham' have been interpreted in different ways by different commentators, like Gauḍapāda, Māṭhara and Vācaspati.

'*Anubhava*' is a word not found either in the Upaniṣads or in the Gītā. Apparently it was popularized by the later day commentators to emphasize the authenticity of the mystical experiences of the spiritual seakers. '*Ācāra*' is not there in the Upaniṣads; it is found only once in the *Gītā* (16.7). '*Viveka*' too is not there in the Gītā. '*Puruṣārtha*' is neither there in the Upaniṣads nor in the Gītā. Most probably it was popularized by the *Sāṅkhya* and the *Yoga* systems; it is there in the *Brahma-sūtras* (3.4.1) and in the *Mīmāṃsā Sūtras* (3.1.6) but Bādarāyaṇa and Jaimini do not mean one and the same thing even when they chose to use the same word! According to Bādarāyaṇa the knowledge of Brahman leads to 'final release'. The commentators quote Chānd. Up. 7.1.3, Taitt. Up. 2.1 in support of Bādarāyaṇa's view. Jaimini, on the other hand, thinks that the really important thing for human beings is the performance of the sacred rituals. (see Br. Sūtras 3.4.1-17) Mokṣa figures only once in the older Upaniṣads (Swet. Up., 6.16) although it is used at several places in the Gītā (4.16; 5.28; 7.29; 9.28; 13.34; 17.27 and 18.30)[1]. It is a different issue if the Gītā can logically accommodate the notion of '*mokṣa*' within the *leitmotif* of the philosophy of action. Secondly, several scholars have observed that the '*mukti*' of the Upaniṣads is not the same as *mokṣa* meaning release from birth.[2] The notion of 'transmigration', which developed at a later stage, added a different dimension to the meaning of '*mokṣa*'.

The word '*śāstra*' is not found in the older Upaniṣads although it is found at half a dozen places in the Gītā. The words 'Artha-Śāstra', 'Kāma Śāstra' etc. are surely post-Upaniṣadic in origin. We have yet to ascertain when the word 'śāstra,' and 'Mokṣa-Śāstra' in particular, came into circulation and acquired the respectability they have now.

In the context of '*puruṣārthas*', '*artha*' has usually been translated as wealth, property, the means of subistence like food, shelter, clothing etc. Some may raise their eyebrows if I express my dissatisfaction over this translation which, I believe causes obfuscation. It is well-known that *artha*, like *dharma*, has several meanings. At the heart of the multiplicity of meanings, there is the inalienable notion of 'use' or 'usefulness' or *chresis* or *chresimotes*, as the Greeks would say.* *Artha* refers to things and objects and, above all, to the *attitude* of mind which treats those objects and things as 'useful', tools and instruments. The possessor's aim is to 'use' those things and objects. *Kāma*—the best way to translate it as '*hedone*', to borrow a Greek word, once again—on the other hand, refers to the *attitude* which craves for things, objects, and, above all, imbibing certain states of mind for their own sake. *Kāma* and *artha*, so to say, pull the agent in two opposite directions; *kāma*, delirious cupidity, pursued with singular devotion, makes the agent entirely heedless to profit and loss, *lābha* and *alābha*, which, as we all know, are at the root of *artha* (see Gītā 2.38 and 6.22). Yet there is a point where the extremes of *artha* and *kāma* meet (Eros or Cupid is known as blind god) and that is in the agent's loosing all sense of proportion and balance. *Kāma* and *artha* are good slaves but bad masters. This is where *Dharma* acquires its importance; it arouses in

1. See '*mukti*' in Br. Up. III, 1.3.4, 5 and 6; '*atimukti*' in Br. Up. III, 1.3-6; '*atimokṣa*'. in Br. Up. III, 1.6; '*vimokṣa*', Br. Up. IV.3.14, 16 and 33.
2. See Edgerton: The Beginnings of Indian Philosophy, London, 1965, p. 31 n. 4; Nakamura: A History of Early Vedanta, Delhi, 1983, p. 41 n 7.

*'money' in Greek is '*chrema*' and wealth is '*chremata*'.

the agent the ability to see for himself where he must exercise restraint and moderation. At a deeper level, *artha* and *kāma*, according to *Dharma*, stem from *saṃkalpa*, an ancient and significant concept in Indian philosophy. *Dharma* takes it for granted that *saṃkalpa* is an inalienable feature of human existence (Manu Smṛti, 2.3)* and seeks to foster in the agent a profound sense of propriety which will enable him to perceive where cupidity and profit/loss blend and amalgamate judiciously. *Dharma*, in other words, lays down the principles of a sane life by promoting uprightness and wholesome customs (*śīla* and *ācāra*).

As observed above, *dharma*, along with *artha* and *kāma*, form *trivarga*; *dharma* has to have a pre-eminent place in the scheme of values as long as *artha* and *kāma* remain as inalienable traits of human existence. '*Pāpa*' and '*puṇya*', very ancient notions, arise in the context of the *dharma*-centred existence. But what happens when the enlightened agent comes to realize the limitative character of *artha* and *kāma* and renounces them? *Mokṣa*, for all that we know, is a state of existence, so to say, where '*artha*' and '*kāma*' have been left behind, or they exist only vestigially. The liberated person, thus, has gone beyond *pāpa*, *puṇya* and, finally, *dharma*. One could refer to several texts in the Upaniṣads and the Gītā where the demands of *dharma* are said to be redundant in so far as the liberated soul is concerned. *Mokṣa*, as the highest but transcendent good, must have been added to the Vedic scheme of values, to constitute *caturvarga*, on account of the steady influence of the Sāṁkhya philosophers who must have derived it from traditions arising in remote antiquity. These traditions were subsequently articulated in different ways by Buddha and Mahavira. The efforts, not always successful, to my mind, to absorb *mokṣa* in the traditional scheme of values, where *dharma* dominated above everything else, by relating *mokṣa* to the knowledge of *Ātman*, *Brahman* as well as *dharma*, are best evident in the Mahābhārata and the Gītā. Scholars say that *mokṣa* does not figure in the Rāmāyaṇa! What figures there pre-eminently is *dharma*. (see Benjumin Khan: The Concept of Dharma in Vālmiki Rāmāyaṇa, Delhi, 1965, p. 5).

Shah refers to '*prasthānatrayī*'. Here too a few questions suggest themselves to us. When did the word came into existence? Assuming that this 'historical' question is not pertinent here, the more apposite question would be: How could the three works, the *Upaniṣads*, the *Gītā* and the *Brahma-sūtras* be clubbed together when the doctrines expounded in them are so different? The Upaniṣads have been viewed as śruti while in the Indian tradition the Gītā is treated as a smṛti, even though it records the views of Kṛṣṇa! Here too we assume, for the time being, that the Upaniṣads offer a systematic philosophy and the Gītā does not contain a host of views inconsistent with each other. The *Brahma-sūtras*, as we find the work today, must have been edited, as scholars hold, in the 5th cent. A.D. For centuries it had been handed

*See Sāṁkhya sūtra 27.

down in secrecy from the master only to their sincere disciples. The notion of '*prasthānatrayī*' thus could not have been popular before the 6th century A.D.

Mokṣa, again, is a word which means different things to different thinkers. At the moment I am not referring to the family of words consisting of *apavarga*, *brahma-nirvāṇa kaivalya*, *niḥśreyas*, *nirvāṇa*, etc. which, according to many modern scholars, mean one and to same thing. This attempt at equating them all, to my mind, is utterly simplistic. Even though philosophers who chose to use '*mokṣa*' don't agree on what the word seeks to convey, the more important question, viewed philosophically, is: how to values like *artha*, *kāma* and *dharma* contribute towards the realization of *mokṣa*? Broadly speaking, there are two conflicting opinions. According to some, the seeker of *mokṣa* must fulfil several obligations arising out of the *dharma*-centred life before he takes the path of renunciation, while according to others, the sincere seeker of *mokṣa* must take a leap, as it were, renouncing all obligations, desires (*saṃkalpa*) and rituals. He must look at himself as utterly lonely and take to the path of *dhyaān*, *upāsanā*, etc.*

There are ages—the modern age is one—when escape from the mundane obligations is seen as a cowardly act. (On the other hand, there are thinkers or sages who held the diametrically opposite view, i.e., total renunciation is considered to be an act of genuine bravery.) *Mokṣa* in those (heroic) ages is either discarded as a value, as it happened in the Rāmāyaṇa, or, is given a polite (but not warm) welcome to occupy a place along with *artha*, *kāma* and *dharma* as it happened in the Mahābhārata. According to many modern thinkers, inspired by the philosophies hostile towards escapism, there was an attempt to combine '*bhoga*' and '*tyāga*' in the Iśā Upaniṣad. But this view has been seriously doubted. Even when *mokṣa* is accommodated as a value, it is recommended, in the final analysis, only to a handful of genuine seekers.**

What, therefore, *puruṣa* 'means', either really or ideally, depends on what we choose to bestow on the notion. According to some, '*puruṣa*', as a matter of fact, cares for '*artha*' and '*kāma*' but ideally should care for *dharma*. The realist is usually met with the argument that since it is the function of *dharma* to award *artha* and *kāma* judiciously to the *puruṣa*, *dharma* is as much a matter of concern as *artha* and *kāma*. The argument is found in the Mahābhārata (5.122.32; 7.126.35), in the Arthaśāstra (1.19.35; 9.7.60) and in the Manu Smṛti (2.224).

Mokṣa comes to be accommodated as value when the enlightened individual's fulfilment or *telos* is seen in his utter loneliness. The question of *mokṣa*, as it is understood in the Indian tradition, does not arise until the enlightened human individual begins to look at himself as an *ārta*, a *jijñāsu* or an *arthārthī* (Gītā 7.16) Analogous thoughts would be found in the canonical works of

*Gītā 6.10; 11.55; 12.18; 18.23 etc.

**See the Gītā 7.3; 7.19; *Kaṭha* Up. 1.2.3; Also see *Matt.* 22.14. Plato, Epistle VII e for analogous views.

Buddhism (Samyutta Nikāya 5.421) and Jainism (Sūtrakṛtaṇga, Ācāranga sūtra).

Those who have never valued '*mokṣa*' cannot possibly judge the achievements of those who have attained it—as a result of their knowledge of Brahman, or as a result of their knowledge of the essenselessness of things, or as a result of *Kevalajñāna*—and those who have, in fact, attained *mokṣa* would certainly not care to be measured or weighed by ordinary mortals. Therefore, the sooner we stop talking about *mokṣa*, the better it would be.

Finally, Shah's hurried transition from the analysis and examination of certain important concepts pertaining to the Sāṁkhya philosophy to other systems, the Vedānta in particular, to make them amenable to accommodate his understanding of '*puruṣārtha*' is, to my mind, obfuscatory in that the distinctions between these systems, visible at almost every step, have been brushed aside in a cavalier fashion.

Serious attempts at introducing the Vedāntic notions into the Sāṁkhya system or introducing the Sāṁkhyan notions into the Vedāntic philosophy were made in antiquity—one could trace them in the *Brahma Sūtras*—but these attempts have not gone unchallenged. The challenges have been made on sound logical grounds and not with a view to protecting the schools (sampradāyas) from the fierce attacks of alien views.

It is, again, not altogether clear if Shah is explicating a historical truth for the modern reader or, he is offering an interpretation, allowing himself the liberty to distort, to a tolerable extent, the opinions found scattered and incipiently in ancient Indian thought or, finally, enunciating views entirely his own and uses the Sanskrit terms merely to garnish his observations. If he is simply enunciating views entirely his own then some of the difficulties I have raised above will turn out to be inconsequential. It is one thing to develop a view, methodically, of course, which has its roots in ancient systems, texts and history, in a conscious and informed manner, and another thing to offer views not only unconnected with one's own tradition but rooted in alien traditions and express them in an idiom borrowed from one's native tradition.

Rajasthan University, Jaipur A.M. GHOSE

INDIAN THOUGHT IS A SYSTEMATIC BODY OF THOUGHT

I am greatly indebted to Professor Ghose for the very detailed comment on my paper 'Philosophy, Religion, Morality, Spirituality: Some Issues.' It gives me an opportunity to think again the problems and explain myself with reference to the various questions raised by him.

I shall first consider some of the specific comments of Professor Ghose and then go on to discuss the general comments.

Let me begin with Professor Ghose's comment that I have used Sanskrit words without translation and perhaps without understanding them. One such word he mentions is *viveka* in my brief presentation of the Sāṁkhya system. I do mention the word *viveka* in the phrase '*puruṣa-prakṛti viveka*', and speak of it as discrimination between *puruṣa* and *prakṛti*. Thus I translate *viveka*, though I do not translate *puruṣa* or *prakṛti*. I think that in this context 'discrimination' is a generally accepted and proper translation of *viveka*. (*Sāṁkhya Kārikā* of Īśvara Kṛṣṇa, tr. Sūryanārāyaṇa Śāstrī.) According to the Sāṁkhya thought such discrimination means the end of the threefold misery and the attainment of the goal of man.

I have also used the terms *anubhava*, *vicāra* and *ācāra* to describe the threefold understanding of discrimination between *puruṣa* and *prakṛti*. These terms I have translated or explained though not at the time of their first occurrence. I suggest that *anubhava* is better understood to mean knowledge and not experience which is understood to be a very temporary, if not momentary, mental state. So sometimes I write it as experience/knowledge. I speak of *vicāra* as intellectual understanding and *ācāra* as conduct or concrete expression of discrimination between *puruṣa* and *prakṛti*. In the light of this, the clumsy locutions, that Professor Ghose thinks result from my understanding do not arise.

Professor Ghose raises questions about the meanings of other words also, e.g. *artha*, *kāma* and *dharma*. It is obvious that I take these words in the context of human goals and I have explained their meaning in this context towards the end of the paper. Another word which Ghose considers in this context is *mokṣa*. I submit that I have not bypassed the difficulties connected with *mokṣa* as a *puruṣārtha*, the number of *puruṣārtha-s*, relation to other *puruṣārthas* and to the metaphysical account of the goal which is described very differently in the different systems. (Please see K.J. Shah, 'Philosophy, Religion, Morality, Spirituality: Some Issues' (PRMS) pp. 10-11, in the *Journal of the Indian Council of Philosophical Research* (JICPR, Jan.-April 1990). Also, *Of Artha and Arthaśāstra* in *The Way of Life*, ed. T.N. Madan,) In the presentation and discussion of these points, I have depended on the texts such as the *Manusmṛti*, Kauṭilya's *Arthaśāstra*, Bharata's *Nāṭyaśāstra*, and so on.

In this discussion I have brought together earlier and later works and ideas without considering the difference of historical context. It is time that I say that certain ideas were present in a work when the word is not used at all in the work, e.g. I talk of *mokṣa* and *anubhava* in the Upaniṣads. However, I have explained the sense in which I understand the word, i.e. I have explained the concept. And a concept can be present in a text even when a particular word is not there, e.g. even if the word *mokṣa* is not to

be found in the earlier works, the presence of the concept is indicated by the use of such words as *apavarga* or *niḥśreyasa*. If this is so, then what needs to be considered is whether the idea was present or not, and not whether the word was present or not. This does not mean that the historical aspect of the thought is not relevant; it may indeed contribute to the understanding of the substantial aspect of thought. However, it is possible to separate the two for a purpose and later take into account the historical factor. Having considered some of the specific questions raised by Professor Ghose, now let us consider some of the general points made by him.

My purpose in undertaking the discussion of the threefold account of the discrimination between *puruṣa* and *prakṛti* was to understand the nature of Sāṁkhya as a whole. It is metaphysics but not only that; it is spirituality, but not only that; it is morality but not only that. It is all these together and religion, but not only that. What is it then? And how are all these elements related to one another?

The consideration of these various issues helps us (i) to understand the Sāṁkhya in all its aspects and their interrelations and not merely in terms of its metaphysics; (ii) to understand the structure of the thought of other systems, e.g. the discussions of Professor Daya Krishna's consideration of Nyāya brings out that the Nyāya thought has the same structural features as the Sāṁkhya thought—*anubhava*, *vicāra* and *ācāra*; (iii) to understand the relation of the thought of Sāṁkhya to other Indian thought, e.g. the idea of the prasthānatrayī: the Upaniṣads where *anubhava* (knowledge) is the main feature, the *Brahmasūtras* where intellectual understanding is the main feature, and the Bhagavadgītā where conduct or living is the main feature; (iv) to understand how exemplars represent the different main features and bring together theory and practice; (v) to understand the relationship of the *puruṣārthas* (the praxis of *mokṣa*) to the metaphysics of *mokṣa*, (incidentally, theory and praxis are brought together in their complexity and great comprehensiveness in the Rāmāyaṇa and the Mahābhārata); (vi) to understand the relation of Indian thought to the western thought and thus bring out the similarities and differences between the two in many contexts including the understanding of Philosophy, Religion, Morality and Sprituality and their interrelations. In Indian thought each of these by itself is an abstraction; it is real only in connection with the rest.

How is all this made possible? It is based on the idea that each text presents a coherent body of thought (not necessarily acceptable therefore, but worthy of consideration therefore). Comparative and historical considerations are important but they must not be allowed to confuse and distort our understanding; they must follow the understanding of a text as a coherent body of thought around one or more central issues considered

by the text, e.g. how can one end the threefold misery? What is *dharma*? What is the way of acquiring and maintaining land (kingdom)? What is *nāṭya* (representative performance)? The articulation of the thought of the text brings to one's notice the interrelations of various kinds that we have already mentioned.

But does this not mean squeezing and stretching so as to impose our own understanding on the text for purposes of our own? Does this not contradict the general impression that Indian thought is fragmented and chaotic, and lacks systamatic connections? I want to suggest that a fresh look at Indian thought reveals how it can at the same time be 'a systematic body of thought' and 'a conglomeration of irreconcileable and even unrelated fragments'? This is possible because the common framework of *anubhava*, *vicāra* and *ācāra* allows for considerable flexibility without destroying the common structure. The element of *ācāra* or discipline in relation to others in the pursuit of wealth, power and pleasure, and discipline in relation to oneself in respect of various inclinations, is more or less the common feature; but it coherers with a variety of metaphysical thought and a variety of ritual practices.

This certainly is a different structual relationship from what is generally there in the Western thought, where systematic thought is defined in terms of the metaphysical system, and the relationship between metaphysics and ethics is not so flexible. It is not surprising that Indian thought appears fragmented and chaotic if the structural features are ignored. However the structural features are there, and the structure has as much legitimacy as the other structure.

This explains many things. Surely there were differences, even animosities and conflicts between different schools of philosophy, yet these did not prevent mutual recongnition, equality, appreciation and legitimacy (this last is very important). For this reason, it was possible for different religions (*sampradāyas*) to live as forms of one religion. If this is right, Indian thought is a systematic body of thought, and on important theoretical and practical issues, it has or can have a stand. Insofar as this is so, it is very unfair to ignore the possible stand of the Indian or Hindu thought—whether it is accepted or not, is another matter. Those who do not want to face this possibility may have purposes of their own—theoretical or practical.

Professor Ghose, and many others who think like him, will rightly think that instead of correcting myself, I am persisting in my folly, and worse. Let me explain: I am not introducing the notions of Sāṁkhya into Vedānta and vice versa, (not that it may not be done), I am comparing only the structures of the two in terms of *anubhava*, *vicāra* and *ācāra*. Nor am I wanting to measure one who has attained *mokṣa* in terms of my ordinary self; but I have the desire to attain *mokṣa*, and I try to live according to *yama* and *niyama*; I am a *jijñāsu* and as such I can humbly

talk of *mokṣa*. May I suggest that though 'minute' and 'precise' understanding of words may help us understand the thought, the understanding of the thought can equally, if not more, help us understand the words more 'precisely'. The former approach has had a long history; may I say that the latter approach too has possibilities?

Karnataka University, Dharwar K. J. SHAH

Obituary

PROFESSOR GOPINATH BHATTACHARYYA

On June 25, 1990 Professor Gopinath Bhattacharyya, a legendary figure in the field of teaching and research in philosophy, passed away after a short spell of illness. He is survived by his wife, two daughters and innumerable students and admirers who had been variously inspired and helped by him.

In spite of his failing physical health towards the end of his life, Professor Bhattacharyya maintained a very sound intellectual health till his last days. At the time of his death he was working on a new edition of *Vedānta Paribhāṣā*, a good introduction to *Advaita Vedānta* system of philosophy, by Dharmarājādhvarindra, with translation and elucidation in English. He started this work around 1986 when he was elected a National Fellow of Indian Council of Philosophical Research. He left this work in a state of near completion. This was to be his second book in the series of 'Basic Texts of Indian Philosophical Systems with Translation and Elucidation in English' he planned; the first book in this series being his own edition of Annambhaṭṭa's *Tarkasaṃgraha* with *Dīpikā*, a Nyāya text, published in 1976. The second edition of this book has since been published. He was preparing to bring out the second volume of his *Essays in Analytical Philosophy* the first volume of which was published in 1989. Another publication he was planning in his last days was a book on Sāṃkhya Philosophy based on the speech (recorded) on the subject he delivered at Jadavpur University in 1977. In this speech he reconstructed Sāṃkhya thought with amazing clarity, depth and novelty.

Born in the house of his maternal uncle in Dhaka, now in Bangladesh, on March 23, 1903 Professor Bhattacharyya had his schooling in Serampore, a municipal town near Calcutta, West Bengal, where he lived in his paternal house with his illustrious father Professor Krishna Chandra Bhattacharyya, George V Professor of Mental and Moral Philosophy at the Calcutta University between 1935 and 1937. The great grandfather of Professor Gopinath Bhattacharyya, Umakanta Tarkalankara, was a Sanskrit Scholar trained in the indigenous seminaries of learning. Professor Gopinath Bhattacharyya was found under age, according to the regulation prevalent at the time, and he was to wait for about two years before he could be allowed to sit for the Matriculation Examination of Calcutta University in 1920. During these years he received informal training in *Pāṇini's Aṣṭādhyāī* with *Kārikā*. He also studied English literature particularly of the romantic period very thoroughly. This was when he developed his lifelong love for literature. His interest and erudition in this field and in the field of philosophy of literature had been amazing though little known. Among his papers published till date only one, 'Art and Morality', is partly in this area. He was also a great admirer of classical

Hindusthani music and could recognize most difficult *ragas* easily. He used to express his indebtedness to his teacher of English, the great Shakespearean scholar Shri Praphullachandra Ghosh for his interest in this field.

Professor Bhattacharyya received four years of undergraduate training in the Presidency College, Calcutta and became a first class philosophy honours graduate of Calcutta University in 1924. He finished his post-graduate studies in philosophy with first class master degree of the same university in the year 1926.

In 1931 he was awarded the Premchand Roychand Studentship of Calcutta University. In the work on Negation which won this award for him, he clearly enunciated what was to become for the next fifty-nine years of his life the norm of doing philosophy; this he actually followed in teaching and writing. It was not so well known except to his close students that his high opinion about the attainments of Indian philosophers of the past was not a matter of nationalist or traditionalist chauvinism but reasoned view arrived at after very deep study of the philosophical literature of different traditions. He believed that Indian philosophical texts were not there to be quoted in dead translation. They were to be interpreted and reconstructed. He wrote on one occasion 'In the West, the ontological aspect [of negation] has not received the attention it really deserves. In India, however, the problem has been discussed with all thoroughness and precision which characterize her philosophy. I have had consequently to refer to Indian philosophy much more often than to Western philosophy.' Elsewhere in the same work he wrote: 'In this paper we shall be mainly concerned with the problem of *knowledge* of negation as fact. It will be evident that what I have presented is the traditional controversy between the Nyāya and the Bhāṭṭa schools. But I have not always followed the traditional line of argument. I have tried to lay bare the "heart" of the controversy but in my own way. I have incorporated, whenever possible, matters from the indigenous schools. The incorporation has been a process of interpretation. I have elaborated, amended and rejected, and I have studiously avoided a "dead" translation of classical texts. I have, therefore, felt it useless to give the precise Sanskrit references.'

After passing M.A. and while serving in WBES Professor Bhattacharyya started, on personal initiative, to receive regular training in Nyāya and Vedānta respectively from Mahāmahopādhyāya Phaṇibhūṣana Tarkavāgīśa and Mahāmahopādhyāya Yogendranāth Tarkavedāntatīrtha, the two most celebrated Paṇḍit adhyāpakas of all time to come. He was also a beloved and renowned student of Sir Sarvepalli Radhakrishnan. Among the teachers whom he remembered always the most effective had been his father whose all the major works he edited and brought out in two volumes *Studies in Philosophy*. (Professor Kalidas Bhattacharyya, his younger brother, exercised his good office to bring out the second edition of the book as a combined volume from Motilal Banarsidass). In this edited volume he has set a remarkably high standard for editors of original and difficult philosophical works. Professor Bhattacharyya was much admired as student by another of his teachers Professor Susil Kumar Moitra, George V Professor of Philosophy, Calcutta University. Professor Moitra entrusted the work of revision of his book, *The Ethics of the Hindus*, before the last edition of it was published, to Professor Bhattacharyya.

After serving Rajsahi College, now in Bangladesh, for some time as a lecturer in philosophy in a leave vacancy, he joined West Bengal Education Service on a regular basis in 1928. He taught at Bethune College, Sanskrit College and Presidency College in Calcutta and in Krishnanagar College and Rajsahi College. In Sanskrit College he was a colleague of Surendranath Dasgupta. He was also a great friend of Rash Behari Das, the founder of the Indian Academy of Philosophy. While in Presidency College Professor Bhattacharyya acted for some time as a part-time lecturer in the Department of Philosophy, University of Calcutta. In 1958 he retired from West Bengal Education Service when he was invited to join the newly established Jadavpur University as Professor of Philosophy and to set up the Department of Philosophy there. He accepted the invitation and took the work of setting up the Philosophy Department in right earnest. In 1962 he left Jadavpur University to join Calcutta University, as Acharya Brajendra Nath Seal Professor of Mental and Moral Philosophy. He retired from University service in 1968. After retiring from regular service he had to concede to requests to accept teaching responsibility in institutions like Sanskrita Sahitya Parishat, West Bengal and Centre of Higher Studies and Research in Sanskrit, Asiatic Society, Calcutta, an institute of national importance.

Besides teaching in these institutions he delivered courses of lecture as Visiting Professor twice in Jadavpur University in 1977 and 1984 and once in Calcutta University in 1979. He was also invited to deliver many endowment lectures of Calcutta University, Sanskrit College, Calcutta, and Ramakrishna Mission Institute of Culture. In these lectures he covered a wide range of topics including Culture, Comparative Religion, Fine Arts, Space and allied concepts, Yoga, Practical Vedānta, Morality and Poetics. Professor Bhattacharyya was the most erudite, inspiring and competent teacher to his students for nearly sixty-two years. His inimitable style of teaching, clarity of thought and exposition, ruthless rigour of analysis, fairness and depth of his criticism of rival views, living faith and critical appreciation of our tradition, commitment without emotion or compromise to academic, moral and social values, and attitude of responsible love towards his country, family, students and acquaintances made him an outstanding personality of his time.

Professor Bhattacharyya was very unassuming and was against publicity of any sort. The person he was may best be described by quoting in verbatim the third paragraph (except perhaps two/three lines) of his introduction to the first volume of collected works of his father.

Professor Bhattacharyya was not only a great teacher but also a great

reformer. He revolutionized teaching of philosophy by framing new integrated syllabi of philosophy for B.A. and M.A. levels. This was to become the model of philosophy syllabus of the country. He implemented this syllabus in the Department of Philosophy he set up in the newly built Jadavpur University in 1956. The few notable features of the syllabus are replacement of secondary readings on primary works of philosophers themselves; equal emphasis on Indian and Western philosophies; inclusion of classical material as well as most recent development including modern formal logic, recent trends in continental philosophy and in contemporary analytical philosophy of Anglo-American tradition. He took the revolutionary step of appointing Pandits trained exclusively in traditional oriental seminaries as regular teachers of philosophy departments of universities. It is mainly due to him that students of philosophy of Calcutta and Jadavpur Universities got the opportunity of studying with the Vedāntin like Pandit Pañchānana Śāstrī and Naiyāyika like Viśvabandhu Bhaṭṭācāryya. He made it possible for students to get acquainted with source material of Indian philosophy in the first hand in every sense of the term. He had been instrumental in the recent times of genuine interest and research in analytical Indian philosophy.

Known best for his academic stature Professor Bhattacharyya had living concern for socio-political situation in the country including such burning questions as national integration, education policies of the centre and the states, and language policy of India. A dedicated and known nationalist in his student days Professor Bhattacharyya taught for sometime in the night school used to be run then at the instance of Professor P.C. Roy in Science College premises for the benefit of the poor children of the minority community of the near-by locality. But Professor Bhattacharyya became disillusioned before long. He found so many of the leaders he used to respect were turning into typical politicians who could not be trusted as preserver and promoter of national culture and interest. In personal life he was a devout Hindu who not only studied the texts and development of this culture but was also among very few who had real understanding of the essence of this culture. This made him in his beliefs and practices a Hindu without apology or vengeance.

Professor Bhattacharyya's death is being deeply mourned by generation of his direct and indirect students who believe that he would not have outlived his need even if his life were prolonged by many more years.

Jadavpur University, Calcutta P.K. MUKHOPADHYAY

Book reviews

BIJOY H. BORUAH: *Fiction and Emotion: A Study in Aesthetics and the Philosophy of Mind* (Oxford University Press, Delhi, 1988), viii+133 pp., Rs. 110.

The work under review is Bijoy Boruah's original contribution to the study of fictional emotions. It is a revised version of his doctoral dissertation submitted to the University of Guelph, Canada. Boruah has aptly called it a study in aesthetics and philosophy of mind as he has treated a large spectrum of concepts beginning from aesthetic emotions to beliefs, actions and imagination within a single framework of justifying the rationality of our emotions towards fictional objects and persons. It is neatly divided into five chapters and has a short introduction and a conclusion. It has an excellent bibliography and index.

Boruah's problem is concerning the rationality of fictional emotions. His question is: Are fictional emotions rationally justifiable? This problem he encounters while grappling with Collin Radford's paradox. The paradox, as Boruah puts it, is: "We believe that what we see or read about in a work of fiction is unreal or non-existent; yet we respond to a fictional character or event with a certain emotion which can only be explained by imputing to us the very belief that is rationally impossible to form" (pp. 1-2). This shows that there is an inconsistency between our emotional response to a character of fiction and our belief that the character is unreal or fictional. We emotionally respond as if the fictional (unreal) character is real. This is the genesis of the theory that fictional emotions are irrational or at best not rationally explainable.

Boruah has argued against this thesis and rightly so, because the contention of irrationality does not hold good even if it is conceded that there is an apparent inconsistency involved in fictional emotions. Fictional emotions are rational because they are genuine responses to situations which are continuous with real-life situations, according to Boruah. However, Boruah concedes, the concept of rationality is itself complex and so needs further analysis. He makes a distinction between S-rationality which is descriptive in character being concerned with the general features of what makes or constitutes a situation as rational and E-rationality which is evaluative in character pointing to the principles or norms of a certain reactive state. In the latter sense a reactive state may be E-irrational because of certain normative lack, but it does not cease to be S-rational since the reactive state belongs to the overall structure of our rational behaviour. Thus, according to Boruah, fictional emotions may be E-irrational in comparison with real-life emotions but they are S-rational all the same and are subject to the criteria of rational criticism.

Fictional emotions constitute the bulk of our rational reactions to the

objects and persons in the fictional situations. Fictional discourse is part of our rational discourse in general and therefore has as much a rational foundation as our general discourse itself. The fictional characters are as much real as the real-life characters insofar as reality does not entail only spatio-temporal existence. The fictional world is spatio-temporally removed from the actual world, but it is intentionally continuous with the latter. Boruah's main argument is thus to establish the intentional continuity, that is, the continuity in terms of beliefs, attitudes and imagination between the actual and the fictional world. The beliefs which constitute our emotional reactions to the fictional world are also the beliefs constituting our emotional response to the actual world. Such beliefs are the evaluative beliefs according to Boruah, because they determine the evaluative conditions of the emotive situations. Since our emotional responses are almost similar, whether the character is real or actual, or fictional, we have enough reasons to believe that our evaluative beliefs are almost the same everywhere. If suffering is bad in real-life situations it is no less bad in a fictional situation. This is the strongest bond between our attitudes to the actual world and our emotional responses to the fictional world. However, there is a difference so far as the existential beliefs are concerned since while real-life characters exist, the fictional objects and persons do not. This is built into the intentional structure of our emotions.

In the absence of existential beliefs regarding the fictional world, there may be a temptation to attribute second-order beliefs or make-beliefs to the fictional world, meaning thereby that fictional emotions involve a species of beliefs which are far removed from the so-called first-order beliefs or actual beliefs. This is in fact the argument of the Reformist theories of Schaper and Walton whom Boruah has subjected to serious criticism in Chapter III of the book. Boruah argues—and I think rightly—that the notion of second-order belief is empty since there are no such beliefs if by it we mean beliefs which are only about fictional objects and so closed off to the actual world. Besides, Boruah contends, the second-order beliefs do not have the causal efficacy to generate aesthetic attitudes in us towards the fictional situations, since they allegedly lack the genuineness of the real-life emotions. Even the argument that the beliefs concerning the fictional world are mere make-beliefs does not hold good for the same reason, that is, that make-beliefs have no causal potency to generate emotions. Thus Boruah argues that fictional emotions are not "alternative to genuine emotions. They are themselves genuine emotions" (p. 71). This position makes hollow the reformist argument that rationality of fictional emotions lies in their being about a make-believed world with at best second-order beliefs.

Just as the reformist thesis falls through, the Radical Theory of Roger Scruton who claims to have provided a rational support to the structure of fictional emotions in his theory of imagination also fares no better for the simple reason that now imagination is substituted for the make-beliefs. For

Scruton, "aesthetic emotions are 'imagined' emotions" (p. 77) and therefore what is basically involved in the fictional emotions are imaginations which are non-cognitive in character being more or less the same as unasserted thoughts. Boruah contends that imagination being a species of unasserted thoughts and lacking the force of a belief loses its causal efficacy in generating emotions and thus must face the prospect of being inadequate as a foundation for aesthetic emotions.

However, Boruah admits that "imagination is partially constitutive of the aesthetic attitude" (p. 95) and so strengthens Scruton's theory to formulate his own thesis which he calls the conservative theory. The conservative theory is a strengthened theory of imagination insofar as it requires that imagination in conjunction with the evaluative beliefs generates the aesthetic emotions. As we have already noted, Boruah identifies evaluative beliefs as a strong component of aesthetic emotions in the fictional context and now adds imagination to them which thus together constitute the 'causal-cum-conceptual' foundation of the fictional emotions. In Boruah's theory imagination comes out stronger than mere thinking or unasserted thought and provides the necessary horizon for the evaluative beliefs to operate. Imagination, according to Boruah, aided by 'empathy' becomes an 'envisagement' such that "the combination actually becomes a causally efficacious condition of emotional response" (p. 117).

Boruah's arguments for a strong foundation of the fictional emotions are persuasive and, to a great extent, successful. His plea for a causal-cum-conceptual account of fictional emotions cannot be faulted either on the ground that he has given only a genetic or causal account of how fictional emotions develop or that he has gone in for an *a prioristic* understanding of the aesthetic emotions without taking aesthetic experience into account. Boruah's method is holistic and, to a large extent, Kantian insofar as he has explored the necessary and universal conditions of the possibility of aesthetic experience keeping in view the entire doxastic repertoire comprising both evaluative beliefs and the empathetic imagination.

Boruah has rightly admitted that the doxastic repertoire is bound to be complex and therefore cannot be neatly divided into watertight compartments. For example, imagination, as Boruah construes it, is a kind of envisagement imbued with empathy and there cannot be a satisfactory account of imagination if the phenomenological origin of the concept is not taken into consideration. Thus in Boruah's theory there has been a transition from the conceptual analysis of the fictional emotions to the analysis of their phenomenological roots. Boruah's analysis has been successful just because he has not missed the obvious while analysing the basic structure of our aesthetic experience. If Boruah's arguments are valid, then a phenomenology of the fictional emotions is bound to succeed in accounting for the rationality of aesthetic experience of the fictional world.

However, one can always seek to know whether Boruah's conservative theory has solved all the conceptual riddles afflicting the fictional discourse. That Boruah has made a serious and highly competent effort to answer the basic question regarding the rationality of fictional emotions is abundantly evident, and added to that, his conservative theory has shown that not only fictional emotions are rational but are also continuous with the real-life emotions. This thesis itself should entail why the philosopher's doubt about the coherent origin of fictional emotions is not only unwarranted but also irrational. The best defence of fictional emotions is not only their sheer genuineness but also their origin in the total context of life of man. Boruah has done well to draw our attention to the holistic rationality of our aesthetic emotions and beliefs.

University of Hyderabad, Hyderabad R.C. PRADHAN

H. WESSEL: *Logik*, 1986, Berlin (VEB Deutscher Verlag der Wissenschaften). 365 pp. (first edition 1983).

Already in large circulation and set for its third edition, in a short time Horst Wessel's *Logik* has become a popular text-book in the universities and academies of science in Germany. In fifteen chapters, it develops systems of sentential logic and quantificational theory (classical two-valued) systematically in their axiomatic, natural deductive and semantic representations, with main meta-theorems of consistency, completeness, independence proved. Throughout, simpler methods of representation are employed in order to reach a much larger community of students instead of just those mainly interested in its mathematical/formal aspects. This includes the students of philosophy and the human sciences and those interested in its applications in their special disciplines. Thus, philosophical problems of logic and language on the one hand and the applications of logic to problems of other philosophical disciplines on the other are discussed at the very beginning (chapters 1-3). Chapter 1 focuses on the object and methods of logic, chapter 2 on its relationship to other philosophical disciplines and chapter 3 on the language of logic. In general, what is remarkable is how the author's treatment of the subject matter in each chapter develops according to a *dialectic* between the text and the exercises at the end of each section.

Here I wish to limit myself to some aspects of *Logik*, leaving the details to the discerning judgement of the specialist and the seriously interested student himself/herself. Let me first turn to chapter 7, which is devoted to the sentential logical theory of logical entailment, and then to subsequent chapters. Here Wessel discusses problems concerning the paradoxes of logical entailment and different systems of resolving them,

which include his own proposal of the system of strict logical entailment, as he calls it. The main idea of his proposal (p. 164) is this:

$$A \vdash B \quad \text{iff}$$

(1) $A \supset B$ is a tautology of classical logic
(2) In B occur only variables, which also occur in A
(3) A is not a contradiction, and B not a tautology.

Axiomatic construction of the same follows then in § 12 (pp. 165-75), with proofs of meta-theorems of consistency, meaning connectedness (Sinnzusammenhang), Paradoxenfreiheit and completeness in relation to the semantics of the system.

Wessel's treatment of theory of predication (chapter 8) distinguishes two kinds of negation, *external* ($\sim$) and *internal* ($\neg$), the semantical rules of the former being the usual classical ones unlike those of the latter (p. 181). Not only are the relevant meta-theorems proved for the resulting new system, the author claims, on argument, that it can be used to solve many paradoxes in the methodology of change. Here he himself uses it for criticism of intuitionistic logic. The chapter 11 turns out to be quite interesting in this very context, since it focuses on representations of intuitionistic logic by axiomatic construction. The author then uses his non-traditional predication theory (chapter 8), with two kinds of negation just alluded to, to support this charge against the intuitionistic sentential calculus that it confuses external with internal negation.

Wessel's treatment of conditionals becomes again interesting as he turns to conditional logic (chapter 12). Here his main objective is to construct a system for conditionals, $A \rightarrow B, \ldots$, in order to overcome problems with systems using the usual '$\supset$' operator. To this end, Wessel's own system uses instead a special conditional operator $\rightarrow$.[1]

While distinguishing the subject and predicate terms from each other, theory of terms (chapter 13) develops the distinction between two kinds of classification of subject terms:

(i) The language-specific classification such that they can be taken either as being *singular* or *general* or *categorical*.
(ii) The semantic classification such that they can be taken either as being referential, empty or as non-empty.

On the contrary, their classification in traditional and modern mathematical logic as being either empty, singular, general and categorical is shown to confuse the two kinds of classifications. Of particular interest here is Wessel's (§ 3, p. 312) definition of a term *b being included by meaning* in term *a* (as different from synonymity of their meaning):

$$ta \longrightarrow to \quad \text{iff}$$

every referent of *a* is also a referent of *b*.

According to Wessel (chapter 14), most of the treatments of modal

logic invariably deal with logical modalities without giving a strong enough definition of what the modal predicates themselves mean or signify. This gap is sought to be filled by Wessel by proposing schemes of definition for different *kinds* of modalities: factual, logical and deontic modalities. Also an analysis of some paradoxes of modal logic is given.

The last chapter on logic of science goes into the generalities as well as treats of specifics such as abstract classes and empirical objects (called clusters/collections), situations, terms of change and development, ordered situations and empirical connections, causal connections, structure and terms of space and time. The reader may find this treatment inadequate, if only for its brevity. But then it should be quite rewarding to turn for more detailed treatment by the author elsewhere.[2/3]

There is no doubt that the author has rendered a valuable service to the logic and philosophy community by writing such an excellent introductory textbook on mathemetical logic and philosophy of logic, containing at the same time his own ideas about the *universality* (as against conventionality) of logic. It is remarkable for its uncompromising philosophical character. Both teachers and students in logic and philosophy will find it, with little effort in German (until the appearance of a proper English translation), a very interesting and stimulating instruction indeed.

G.L. Pandit
Peter Vollbrecht

Delhi University

Notes and References

1. Together with Uwe Scheffler, Wessel has developed these ideas further in their (1987) "Ein System der strikten logischen Folgebeziehung für Konditionalaussagen mit Semantik", in Evelyn Dölling (ed.), *Logik in der Semantik—Semantik in der Logik*, Berlin 1987, Vol. I.
2. See A. Sinowjew and H., Wessel, *Logische Sprachregeln*: *Eine Einführung in dir Logik*, Berlin 1975.
3. See Gethmann, Carl Friedrich, "Formale Logik und Dialektik, Die Logikdiskussion in der DDR 1951 bis 1958" in Clemens Burrichter (Hrsg), 1984, *Ein kurzer* Frühling der *Philosophie* München/Wien/Zürich (pp. 75-155).

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Philosophy of Sikhism by NIRBHAY SINGH, GURU GOBIND SINGH
Department of Religious Studies, PunjabUniversity, Chandigarh

Perspectives on Nyaya Logic and Epistemology by PROF. S R SAHA
Jadavpur University, Calcutta

Gadadhar's Theory of Objectivity Visayatavada
by SIBAJIBAN BHATTACHARYA

Religious Consciousness and Life Worlds ed. T S RUKMANI
IIAS, Shimla

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The Sensuous in Art: Reflections on Indian Aesthetics by REKHA JHANJI
IIAS, Shimla

Ends and Mean: In Private and Public Life by RAJENDRA PRASAD

Language, Truth and Predication
by M N MITRA
New Statesman Publishing Co. Ltd, New Delhi

Truth, Faith and Life
by JEH TWEEN GONG
Adams Press, Chicago

Critique of Pure Verbiage
by RONALD ENGLEFIELD
Open Court Publishing Co., Lasalle, Illinois

Towards Perpetual Peace
by NIKUNJA VIHARI BANERJEE
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Pramāṇām, by Prof. K.T. Pandurangi, 61 pages
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Vidhitrayam, by Prof. R.S. Devanatha Tattacharya, 79 pages
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VOL. XVIII, NO. 2, APRIL 1991

Ashok Gangadean: Sense, Truth and Predication (II)
R. Sundara Rajan: Intention and Reference in Ricoeur's Hermeneutics (III)
Philippe H. Fluri: T.S. Kuhn and L. Fleck, Two Sociologists of Science
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19-1-1991
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23-2-1991
The Concept of Aucitya
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23-3-1991
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Inquiry, Volume 34 (1991)
will be an extended volume, containing 64 more pages than usual. The volume will contain a symposium on Charles Taylor's *Sources of the Self*, with contributions by Stephen R.L. Clark, Will Kymlicka, Martin Löw-Beer, Michael Rosen, Quentin Skinner and Charles Taylor.

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Critical Reviews: L. Aqvist ***by*** J. Tomberlin; E. Pincoffs ***by*** D. Wong; E. LePore & B. McLaughlin ***by*** W. Sinnot-Armstrong; A. Rosenberg ***by*** F. Gifford; T. Penner ***by*** G. Fine; R. Meyer ***by*** P. Moser; A.Donagan ***by*** J. Montmarquet; E. Wolgast ***by*** E. Byrne; H. Gadamer ***by*** J. Zuñiga; J. Tomberlin ***by*** T. Horgan; Annas & Barnes ***by*** E. De Olaso.

VOLUME 25, NO. 2 **SPECIAL APA ISSUE** **APRIL 1991**

Symposium Papers and Abstracts of Invited Papers by: J. Wallace; B. Herman; P. Railton; D. Schweickart; C. Gould; T. McCarthy; C. Card; L. Outlaw; O. Flanagan; M. Friedman; R. Mohr; D. Kolb; C. Wright; M. Kaplan; W. Lycan; D. Sanford; D. Nute; V. McGee.

Critical Reviews: N. Cocchiarella ***by*** D. Bonevac; J. Elster ***by*** M. Fisk; M. Bratman ***by*** H.J. McCann; G.B. Madison ***by*** J. DeCew; T.V. Morris ***by*** B. Miller; L. Holscher ***by*** M. Strasser; G. Schlesinger ***by*** P. Quinn; H. Brown ***by*** J. Fetzer; K. Hanson ***by*** R. Lemos.

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PHILOSOPHICAL CALENDAR
January 1, 1991

JANUARY

3–17 **Set Theory of the Reals Conference**
Bar-Ilan University
Theme: The Continuum Problem is Still Open
Contact: Set Theory of the Reals, Mathematics and Computer Sci., Bar-Ilan U., 52900 Ramat-Gan, Israel

10–13 **Association for Symbolic Logic**
Carnegie-Mellon University
Contact: Ward Henson, Mathematics, U. Of Illinois, Urbana, IL 61801

11 **Conference on Neurophilosophy and Alzheimer's Disease**
La Jolla
Contact: Jacqueline Mervaillie (Fondationpsen), 30, Rue Cambronne, 75737 Paris, France

23–25 **Conference: Ethics in America**
Long Beach
Papers due: September 28, 1990
Contact: National Conference on Ethics, U. Extension Services, California St. U., Long Beach, Long Beach, CA 90840-0104

JANUARY

30 **Symposium: Philosophy of Religion**
Rochester Institute of Technology
Papers due: November 15, 1990
Contact: Dane Gordon, Philosophy, Rochester Institute of Technology, Rochester, NY 14623–0887

FEBRUARY

8–9 **Society of Christian Philosophers–Pacific Regional**
Fuller Theological Seminary, Pasadena
Contact: Paul J. Weithman, Philosophy Loyola Marymount U., Loyola Blvd. at W. 80th St., Los Angeles, CA 90045

15–17 **Conference: Scepticism in the History of Philosophy: A Pan-American Dialogue**
University of California, Riverside
Contact: Ctr. for Ideas and Society, U. of California, Riverside, Riverside, CA 92521–0201

* 28–March 3
Society for the Advancement of American Philosophy
University of California, Santa Cruz
Contact: Kenneth W. Stikkers, Philosophy, Seattle U., Seattle, WA 98122

MARCH

1–2 **Scoeity for the Advancement of American Philosophy**
University of California, Santa Cruz
Theme: American Philosophy and the Social Sciences
Papers due: November 1, 1990
Contact: Kenneth W. Stikkers, Philosophy, Seattle U., Seattle, WA 98122

Mid–South Philosophy Conference
Memphis State University
Papers due: January 1, 1991
Contact: G. McKee Lee, Philosophy, Central Missouri St. U., Warrensburg, MO 64093

3–5 **2nd Interamerican Congress of Philosophy and Technology**
University of Puerto at Mayaguez
Contact: Elena Lugo, Ctr. for the Philosophy and History of Science and Technology, Humanities, U. of Puerto Rico, Mayaguez, PR 00709–5000

* 7–9 **Symposium: Environmental Ethics Today, and into the 21st Century**
California State University, Fullerton
Contact: Ernest Partridge, Philosophy, California St. U., Fullerton, CA 92634

8–9 **Metaphysical Society of America**
Pennsylvania State University
Theme: Potentiality and Presence
Papers due: September 1, 1990
Contact: Drew Hyland, Philosophy, Trinity College, Hartford, CT 06106

8–10 **Society for Philosophy and Technology**
University of Puerto Rico in Mayaguez
Theme: The Discovery of Technology and Technologies of Discovery
Papers due: October 1, 1990
Contact: Joseph Pitt, Philosophy, Virginia Tech, Blacksburg, VA 24061

*9–10 **Southeastern Logic Symposium**
University of Florida
Contact: J. Larson, Mathematics, U. of Florida, Gainesville, FL 32611 (jal@math.ufl.edu)

*12–13 **Conference: Judaism and Secularization**
University of Alabama
Contact: Richard A. Cohen, Religious Studies, U. of Alabama, Tuscaloosa, AL 35487–0264

18–21 **Round Table on Law and Semiotics**
Reading, Pennsylvania
Theme: Law and the Human Sciences
Abstracts due: October 30, 1990
Contact: Roberta Kevelson, Ctr. for Semiotic Research, Pennsylvania St. U.–Berks, Reading, PA 19610

25–28 **International Conference on Mathematical Linguistics**
University of Barcelona
Abstracts due: September 6, 1990
Contact: Carlos Martin Vide, Universitat de Barcelona, Gran Via de les Corts Catalanes, 585, 08007 Barcelona, Spain

27–30 **American Philosophical Association—Pacific Div. (APA)**
San Francisco
Papers due: September 1, 1990
Contact: Anita Silvers, Philosophy, San Francisco St. U., San Francisco, CA 94132

27–30 **American Association of Philosophy Teachers (with APA)**
Contact: Rosalind Ekman Ladd, Philosophy, Wheaton College, Norton, MA 02766

Association for Symbolic Logic (with APA)
Contact: Ward Henson, Mathematics, U. of Illinois, Urbana, IL 61801

Conference of Philosophical Societies (with APA)
Papers due: August 15, 1990
Contact: Sander Lee, Philosophy, Parker 27, Keene St. College, Keene, NH 03431

Jaspers Society of North America (with APA)
Theme: The Idea of the University and the Civil Society
Contact: Malek Khazaee, Philosophy, California St. U., Long Beach, CA 90840

North American Division of the Schopenhauer Society (with APA)
Contact: David Cartwright, Philosophy and Religious Studies, U. of Wisconsin, Whitewater, WI 53190

* **North American Kant Society (with APA)**
Contact: Guenter Zoeller, Philosophy, U. of Iowa, Iowa City, IA 52242 (fy2kwn@irishmvs)

North American Nietzsche Society (with APA)
Contact: Richard Schacht, Philosophy, U. of Illinois, Urbana, IL 61801

North American Society for Social Philosophy (with APA)
Contact: Richard Schacht, Philosophy, U. of Redlands, Redlands, CA 92374

Society for Realist/Antirealist Discussion (with APA)
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Contact: Mary Carman Rose, 402 Gittings Ave., Baltimore, MD 21212

Society for the Contemporary Assessment of Platonism (with APA)
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Society for the Philosophic Study of Genocide and the Holocaust (with APA)
Papers due: August 15, 1990
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MARCH

27–30 **Society for the Philosophic Study of the Contemporary Visual Arts (with APA)**
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Contact: Sander Lee, Philosophy, Parker 27, Keene St. College Keene, NH 03431

Society for the Study of Ethics and Animals (with APA)
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Popular Culture Association—Philosophy Section
San Antonio
Papers due: October 1, 1990
Contact: Diane Raymond, Philosophy, Simmons College, Boston, MA 02115

28–30 **Southern Society for Philosophy and Psychology**
Atlanta
Papers due: November 15, 1990
Contact: Richard Burns, Psychology, Georgia South-western College, Americus, GA 31709

APRIL

* 1–6 **9th Easter Conference on Model Theory**
Humboldt University
Contact: Peter Goering, Fachbereich Mathematik, Humboldt–Universitaet, PSF 1297, 1086, Berlin, Germany

2 **Hans Reichenbach Centenary Symposium**
Boston University and Harvard University
Contact: Rober S. Cohen, Ctr. for Philosophy and History of Science, Boston U., Boston, MA 02215

3–5 **American Society for Aesthetics—Pacific Division**
Asilomar Conference Grounds, Pacific Grove, CA
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Contact: Thomas Leddy, Philosophy, San Jose St. U., San Jose, CA 95192–0096

5–7 **Conference on the Philosophy of Mathematics**
Amherst College
Theme: Mathematics and Mind
Contact: Diedre Smith, Philosophy, Amherst College, Amherst, MA 01002 (dcsmith@amherst.bitnet)

APRIL

5–7 **American Catholic Philosophical Association (ACPA)**
Boston
Theme: Religions and the Virtue of Religion
Papers due: Pctober 1, 1990
Contact: Therese–Anne Druart, School of Philosophy, Catholic U. of America, Washington, D.C. 20064

Gabriel Marcel Society (with ACPA)
Papers due: November 15, 1990
Contact: K.R. Hanley, Philosophy, LeMoyne College, Syracuse, NY 13214

* **Yves R. Simon Institute Session (with ACPA)**
Contact: Anthony O. Simon, Yves R. Simon Institute, 508 Travers Circle, Mishawaka, IN 46545

Society of Christian Philosophers–Eastern Regional Rhodes College
Papers due: January 1, 1991
Contact: Larry Lacy, Philosophy, Rhodes College, Memphis, TN 38112–1690

9–11 **British Society for the History of Philosophy**
Magdalen College, Oxford University
Theme: The History of Philosophy in Universities
Contact: G. MacDonals Ross, Philosophy, Leeds U., Leeds LS2 9JT England

11–13 **Conference on Michael Polanyi**
Kent State University
Papers due: November 15, 1990
Contact: Raymond E. Wilken, College of Education, Kent State U., Kent, OH 44242

Southeastern Nineteenth Century Studies Association
New Orleans
Theme: Political Agendas of Nineteenth Century Cultures
Papers due: November 1, 1990
Contact: Maureen L. Egan, Philosophy, Elms College, Chicopee, MA 01013

12–14 **New Mexico and West Texas Philosophical Society**
Albuquerque
Papers due: January 15, 1991
Contact: H.B. Alexander, Philosophy, U. of New Mexico, Albuquerque, NM 87131

13 **American Catholic Philosophical Association Round Table**
Seton Hall University
Abstracts due: March 6, 1991
Contact: Florence Hotzler, Chateau Rochambeau, Apt. 6L, Scarsdale, NY 10583

15–16 **The Philosophy and History of Molecular Biology: New Perspectives**
Boston University
Contact: Robert S. Cohen, Ctr. for Philosophy and History of Science, Boston U., Boston, MA 02215

17–20 **Conference: Environmental Rights in Conflict: In Search for the Foundation of a Land Ethic**
University of Arkansas at Little Rock
Contact: Philosophy and Religious Studies, U. of Ark. at Little Rock, Little Rock, AR 72204

18–21 **5th International Round Table on Law and Semiotics**
Penn State at Reading
Theme: Law and the Human Sciences
Abstracts due: November 15, 1990
Contact: Roberts Kevelson, Ctr. for Semiotic Research, Penn St. U., Reading, PA 19610–6009

19–20 **Conference: The Epistemology of Religious Belief**
Santa Clara University
Papers due: January 7, 1991
Contact: Elizabeth S. Radcliffe, Philosophy, Santa Clara U., Santa Clara, CA 95053

* 21–May 4
Finite and Infinite Combinatorics in Sets and Logic
Banff
Contact: N. Sauer, Mathematics and Statistics, U. of Calgary, Calgary, Alberta T2N 1N4

24 **Symposium: The Medievals and Us: The Relevance of Medieval Studies to the Contemporary World**
Rochester Institute of Technology
Papers due: February 15, 1991
Contact: James Campbell, Philosophy, Rochester Inst. of Technology, Rochester, NY 14623–0887

24–27 **American Philosophical Association—Central Div. (APA)**
Chicago
Papers due: September 1, 1990
Contact: Karen Hanson, Philosophy, Indiana U., Bloomington, IN 47405

24–27 **American Association of Philosophy Teachers (with APA)**
Contact: Rosalind Ekman Ladd, Philosophy, Wheaton College, Norton, MA 02766

American Society for Value Inquiry (with APA)
Papers due: September 1, 1990
Contact: Thomas Nagnell, Philosophy, Drew U., Madison, NJ 07940

Conference of Philosophical Societies (with APA)
Papers due: August 15, 1990
Contact: Sander Lee, Philosophy, Parker 27, Keene St. College, Keene, NH 03431

North American Kant Society (with APA)
Theme: Kant and Kantians in Ethical Theory
Contact: Guenter Zoeller, Philosophy, U. of Iowa, Iowa City, IA 52242 <fy2kwn@irishmvs>

North American Nietzsche Society (with APA)
Contact: Richard Schacht, Philosophy, U. of Illinois, Urbana, IL 61801

North American Society for Social Philosophy (with APA)
Contact: William McBridge, Philosophy, Purdue U., West Lafayette, IN 47907

Society for Medieval and Renaissance Philosophy (with APA)
Papers due: September 1, 1990
Contact: Jorge J.E. Gracia, Philosophy, SUNY at Buffalo, Buffalo, NY 14260

Society for Realist/Antirealist Discussion (with APA)
Abstracts due: October 15, 1990
Contact: Mary Carman Rose, 402 Gittings Ave., Baltimore, MD 21212

Society for the Philosophic Study of Genocide and the Holocaust (with APA)
Papers due: August 15, 1990
Contact: Alan Rosenberg, Philosophy, Queens College, CUNY, Flushing, NY 11367

Society for the Philosophic Study of the Contemporary Visual Arts (with APA)
Theme: Philosophy and Film
Contact: Sander Lee, Philosophy, Parker 27, Keene St. College, Keene, NH 03431

APRIL

24–27 **Society for the Philosophy of Sex and Love (with APA)**
Papers due: September 1, 1990
Contact: Alan Soble, Philosophy, U. of New Orleans, New Orleans, LA 70148

Society for the Study of Ethics and Animals (with APA)
Papers due: September 1, 1990
Contact: Harlan B. Miller, Philosophy, Virginia Tech, Blacksburg, VA 24061–0126

MAY

7–11 **2nd International Colloquium on Cognitive Science**
Donostia-San Sebastian, Spain
Abstracts due: February 19, 1991
Contact: J. Ezquerro, ICCS–91, Logic and Phil. of Sci., Univ. Pai Vasco, Apdo, 1249 20080 San Sebastian, Spain <ICCS–91@fil. ehules>

16–18 **International Association for Philosophy and Literature**
University of Montreal
Theme: Change: Arts Politics Science
Papers due: October 15, 1990
Contact: Christie McDonald, Etudes francaises, U. of Montreal, Montreal, Quebec, H3C 3J7

23–26 **Society for Exact Philosophy**
University of Victoria
Theme: Automated Theorem Proving for Non-Classical Logics
Contact: Charles Morgan, Philosophy, U. of Victoria, Victoria, B.C., V8W 3P4 <morgan@uvphys. bitnet>

North American Association for the Study of Jean–Jacques
Boston College
Theme: La Nouvelle Heloise
Contact: Ourida Mostefai, Romance Languages Literature, Boston College, Chestnut Hill, MA 02167

24–June 4
Third Conference of North American and Cuban Philosophers
Habana
Theme: The Future of Socialism: The View from Cuba
Abstracts due: January 11, 1991
Contact: Cliff DuRand, Radical Philosophy Assoc., 1443 Gorsuch Ave., Baltimore, MD 21218

MAY

26–29 **The Multiple-Valued Logic Technical Committee of the IEEE Computer Society**
University of Victoria
Theme: 1991 International Symposium on Multiple–Valued Logic
Papers due: November 1, 1990
Contact: D.M. Miller, Computer Science, U. of Victoria, Victoria, B.C. V8W 2Y2 <dmill@csr.unic.ca>

27–31 **International Symposium on Godel's Theorem**
Paris
Theme: Commemoration of the 60th Anniversary of Godel's Incompleteness Theorem
Contact: Zbigniew W. Wolkowski, P. and M. Curie U., R.P. 56, 75623 Paris Cedex 13, France

30–31 **Sixth Annual Multidisciplinary Conference: World War II–A 50 Year Perspective**
Siena College
Papers due: December 15, 1990
Contact: Thomas O. Kelly, II, History, Siena College, Loudonville, NY 12211

JUNE

6–8 **East Meets West: Conference on Comparative Philosophy**
University of Mysore, India
Contact: B. Srinivasa Murthy, Philosophy, California St. U., Long Beach, CA 90840

9–11 **Society for Philosophy and Psychology**
SanFrancisco State University
Papers due: January 5, 1991
Contact: Jerry Samet, Philosophy, Brandeis U., Waltham, MA 02154

*13–14 **Swiss Logic Society Symposium on Godel's Theorem**
University of Neuchatel
Contact: Denis Mieville, Logic, U. of Neuchatel, Espace Louis–Agassiz 1, CH–2000 Neuchatel, Switzerland

*18–22 **Conference on Constructivity in Computer Science**
Trinity University, San Antonio
Abstracts due: January 31, 1991
Contact: J. Paul Myers, Computer Science, Trinity U., San Antonio, TX 78212 <pmyers@trinity>

MAY

27–30 **Third International Conference in History and Philosophy of General Relativity**
University of Pittsburgh, Johnstown Campus
Contact: John Norton, History and Philosophy of Sci., U. of Pittsburgh, Pittsburgh, PA 15260

28–30 **Husserl Circle**
Seattle University
Contact: Burt Hopkins, Philosophy, Seattle U., Seattle, WA 98122–4460

JUNE

*30–July 3
6th Annual Conference on Structure in Complexity Theory
University of Chicago
Papers due: January 23, 1991
Contact: J. Royer, Computer and Inf. Science, Syracuse U., Syracuse, NY 13244 <structures@top. cis. syr. edu>

JULY

*5–7 **Conference: Philosophical Hermeneutics and Greek Philosophy**
Universitat Heidelberg
Contact: James Risser, Philosophy, Seattle U., Seattle, WA 98122

15–18 **6th Annual Logic in Computer Science Symposium**
Amsterdam
Abstracts due: January 2, 1991
Contact: Gilles Kahn, INRIA Sophia–Antipolis, 06565 Valbonne Cedex, France <kahn@mirsa. inria. fr>

20–21 **Linguistics Society of America Conference: Logic and Linguistics**
University of California, Santa Cruz
Contact: W. Ladusaw, Linguistics, U. of California, Santa Cruz, CA 95064

21–25 **World Conference of Philosophy (WCP)**
Nairobi
Theme: Philosophy, Man, and the Environment
Papers due: September 30, 1990
Contact: Congress Secretariate, C O Kenya Academy of Sciences, Community Bldg., p. O. Box 39450, Nairobi, Kenya

International Society for Value Inquiry (with WCP)
Papers due: December 1, 1990
Contact: Ruth Lucier, P. O. Box 35, Bynum, NC 27228–0035