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Continued on back cover

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Contents

ARTICLES

R.K. GUPTA
Moral Exceptions 1

D. GUHA
An Enquiry into the Cases of Normative Ethics and Applied Ethics 15

AMITABHA DASGUPTA
Solidarity or Objectivity? Richard Rorty and the Predicament of Relativism 33

P.K. POKKER
The Fear of Emancipation is the Limit of Lyotard 57

CHHANDA CHAKRABORTI
Human Deductive Reasoning, Genetic Algorithms: A Proposed Model 63

SANGEETHA MENON
Towards a Śaṇkarite Approach to Consciousness Studies: A discussion in the context of recent interdisciplinary scientific perspectives 95

DAVID EMMANUEL SINGH
Ibn 'Arabi—The Great Philosopher of Being and the Arabic Philosophical Tradition 113

H.S. PRASAD
The Phenomenology of Meaning: Diṅnāga to Ratnakīrti 131

V. SHEKHAWAT
Saṁvāda Gaṇita or Pṛatīka Ānvīkṣikī 163

DISCUSSION AND COMMENTS

DAYA KRISHNA: *Nyāya; Realist or Idealist: Is the debate ended, the argument concluded?* 179

N.S. DRAVID: *'Is Nyāya Realist or Idealist? Has the Debate Ended?' A Rejoinder* 196

ĀCĀRYA MAHĀPRAJÑA: *Comments on the Article entitled 'How Anekāntika is Anekānta? Some Reflections on Jain Theory of Anekāntavāda' by Daya Krishna published in the JICPR, Vol. XVI, No. 2* 205

SAURAVPRAN GOSWAMI: *Reaction to the Article of Professor R.C. Pradhan entitled 'Persons as Minded Beings: Towards a Metaphysics of Persons' published in the JICPR, Vol. XV, No. 3* 218

R.C. PRADHAN: *Response to Dr Sauravpran Goswami's reaction to the article of Professor R.C. Pradhan entitled 'Persons as Minded Beings: Towards a Metaphysics of Persons' published in the JICPR, Vol. XV, No. 3* 221

Y. KRISHAN: *Comments on the article entitled 'Yajña and the Doctrine of Karma: A Contradiction in Indian Thought and Action' published in the JICPR, Vol. VI, No. 2* 227

AGENDA FOR RESEARCH 235

FOCUS 237

NOTES AND QUERIES

A. NOTES:
   a) A bibliography of Wittgenstein's published Writings
   Ashok Vohra 239
   b) Can a Niskāma Karma have really no effects?
   Rajendra Prasad 242

B. QUERIES AND THEIR REPLIES:
   1. Reply to Query 'How can there be such a discipline as Philosophy of Science?' published in the *JICPR* Vol. XVI No. 3
   Bijoy Mukherjee 243
   2. 'Death is not an event in life...'
   Wittgenstein's views on the Metaphor of Death.
   K.C. Pandey 252
   Explication on above
   Ashok Vohra 252
   3. Further Observations on the Navya Nyāya View of Tautology on the Note of Dr. Raghunath Ghosh published in the *JICPR* Vol. XVII No. 2 p. 170–1 under the heading 'A Note on Identity Relation'
   N.S. Dravid 256

BOOK REVIEWS

BRUCE M. SULLIVAN: *Seer of the Fifth Veda: Kṛṣṇa, Dvaipāyana Vyāsa in the Mahābhārata*, by N.M. Kansara 259

PAUL ERNEST: *Social Constructivism as a Philosophy of Mathematics*, by C.K. Raju 267

KARUNA BHATTACHARYA: *Madhusūdana Sarasvatī, Advaita-Siddhih*, by S. Revathy 270

P.K. MOHAPATRA: *Social Justice: Philosophical Perspectives*, by A. Kanthamani 271

M.P. PANDIT: *Sri Aurobindo*, by N. Jayashanmukham 280

MADHURI SANTANAM SONDHI: *Modernity, Morality and the Mahatma*, by Asha Mukherjee 282

Moral Exceptions

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1

Kant conceives of a moral law as a categorical imperative. One, and possibly the most well-known, way, in which he expresses the latter is: 'Act only on that maxim through which you can at the same time will that it should become a universal law.'[1] One of the major criticisms which has long been made against this formulation of a categorical imperative is that it would make a moral law too rigorous. And the reason which has been advanced for this formulation making a moral law too rigorous is that it does not allow exceptions to a moral law, whereas there are exceptions to at least many a moral law. The example which is most frequently mentioned in this connection is that of the moral law about speaking the truth and there being exceptions to it, as when protecting the life of an innocent person who was being pursued by a murderer and who had taken refuge with us. In his essay, 'On an Alleged Right to Lie from the Motive of Benevolence,'[2] Kant himself mentions this criticism, and this reason for which it is made and the very same example which is most frequently put forward in the matter, as he finds all that in Benjamin Constant's work, *France*, 1797, Part Six, No. 1: On Political Reactions, pages 123–4; and then he also goes on to discuss what Constant has to say. I will state here what Constant has to say as well as Kant's consideration of it.

As Kant presents it and as I understand it, concerning the criticism of rigorousness against Kant's above-mentioned formulation of a categorical imperative and the reason for which it is made and making use of the very same example which is most frequently put forward in the matter, Constant says two things: (1) the moral law that it is one's duty to speak the truth, when taken as unconditional and in isolation, would make society impossible. This is proved by Kant's drawing from it the consequence that it would be a crime to tell a lie to a murderer, who was after our friend and who had taken refuge with us. 'The moral principle that it is duty to speak the truth, if one took it as unconditional and in isolation, would make society impos-

sible. We have the proof of this in the very immediate consequence which is drawn from this principle by a German philosopher, who goes so far as to maintain that it would be a crime to tell a lie to a murderer, who asked us whether our friend, whom he was pursuing, had taken refuge in our house.'[3] (2) Duties and rights are correlative; thus the person A's duty to speak the truth is correlative with the person B's right to have the truth spoken to him; but B does not have the right to have the truth spoken to him, if speaking the truth to him harms somebody else; hence A does not have a duty to speak the truth to B, if speaking the truth to B harms somebody else. In brief, A's duty to speak the truth is qualified by B's right to have the truth spoken to him. 'It is a duty to speak the truth. The concept of duty is inseparable from the concept of right. A duty is which in one being corresponds with a right in another. Where there is no right, there is no duty. Thus it is a duty to speak the truth, but only to one who has a right to the truth. But no one has a right to a truth, which harms another.'[4]

Now, again as I see it, in discussing what Constant has to say, Kant also says two things: (1) he distinguishes between truth and truthfulness. By the former notion, I understand him to mean that which one says is true or happens to be true; and by the latter notion, I understand him to mean one's speaking the truth as one knows or believes it to be. According to him, it makes no sense to talk of one's right to truth, because that would make truth dependent on one's will. One can only talk of one's right to one's own truthfulness. '... the expression that one has a right to truth is one without meaning. We should rather say that one has a right to one's own truthfulness (*veracitas*), i.e. to subjective truth in one's person. For objectively having a right to truth would be so much as to say, as with Mine and Thine generally, that it depends upon one's will whether a given proposition should be true or false ...'[5] (2) Apparently referring to the example where there is the question of telling a lie to the murderer concerned, Kant raises the question whether it is one's duty to be untruthful in statements to which one is unjustly forced, in order to protect somebody against a threatened crime. And he contends that: (i) it is one's formal duty towards others to be truthful in statements which one cannot avoid, however disadvantageous that may happen to be to anyone; and (ii) although, in being untruthful towards the person who unjustly forces one to make a statement, one does him no wrong, yet one does wrong to humanity in general, insofar as, as far as it lies in one's power, one does something as a result of which, generally speaking, statements, including those made in a contract, lose their credibility. 'Truthfulness

in statements, which one cannot avoid, is one's formal duty towards others, however great a disadvantage may result from it to one's own self or to somebody else; and although I do not do any wrong to him who unjustly forces me to make a statement in falsifying it, I do indeed do wrong, through this falsification which can be called a lie (even though not in the legal sense), to duty in general in the most essential point; that is, so far as it lies in me, I bring this about that statements (declarations) generally do not find any credibility, and consequently all rights which are grounded in contracts also become void and lose their force; which is a wrong inflicted upon humanity in general.'[6]

It will be seen here that Kant's second point relates to Constant's first point, and his first point relates to the latter's second point.

Now, for the time being, I would only like to make one comment on Constant's first point and two main comments on Kant's second point.

(1) It is not clear why Constant maintains that society would become impossible as a result of Kant's conceiving the moral law about speaking the truth as being unconditional, and consequently not allowing the person concerned to tell a lie to the murderer concerned. What would become impossible is the kind of society which Constant may have in mind, namely the society in which it is the moral duty of the person concerned to tell a lie to the murderer concerned. It seems to me that what Constant really wants to say here is simply that there is something morally not quite all right in the person concerned not telling a lie to the murderer concerned. There is just no need to refer to the idea of society in this place. And if this is the case, then what we have before us at present is, on the one hand, the thesis, which Constant attributes to Kant, about the moral law about speaking the truth as being unconditional, and, on the other hand, Constant's thesis about there being conditions under which a person would be morally justified in telling a lie.

(2) As regards the first sub-point of Kant's second point, on the basis of what he says there, it follows that he rejects Constant's contention about it being the moral duty of the person concerned to tell a lie to the murderer concerned, and consequently the latter's implied contention of there being exceptions to the thesis, which Constant attributes to Kant, about the moral law about speaking the truth as being unconditional, and one of Kant's rejections of Constant's criticisms of this thesis.

(3) As regards the second sub-point of Kant's second point, on the basis of what he says there, the moral law about speaking the truth would be converted into a conditional or hypothetical law, i.e. a law which depends for

its validity on its embodying or articulating the instrumentality of producing such and such consequences, here the consequence of the person concerned not contributing to the statements losing their credibility and consequently not doing wrong to humanity in general. And this would be incompatible with his above-mentioned formulation of a categorical imperative which demands universality or unconditionality of a moral law. Here it may be mentioned in passing that if Kant maintains that, in telling a lie to the murderer concerned, the person concerned contributes to the statements losing their credibility and thus he does wrong to humanity in general; then it can be maintained with no less plausibility that, in telling a lie to the murderer concerned, the person concerned contributes to the assurances losing their credibility and thus he does wrong to humanity in general. But, as a matter of fact, here, in telling a lie to the murderer concerned, the person concerned need not be contributing to the statements losing their credibility; for it may be said to be understood that he is not telling a lie just like that, but on account of his belief that his doing so under the circumstances overrules the claims of speaking the truth. There is indeed the possibility that he speaks the truth, but then he should be prepared even to stake his life towards keeping his assurance.

Now, I have already left out from commenting Constant's second point and Kant's first point. We may also leave out the second sub-point of Kant's second point for the reason that it is incompatible with his above-mentioned formulation of a categorical imperative, which is his conception of a moral law. As a result, from what Constant has said and what Kant has said about this and what I have said about both, what we have before us is as follows: (1) Kant's affirmation that the moral law about speaking the truth is unconditional, and consequently his rejection of Constant's contention that there are exceptions to this law; and (2) Constant's contention that there are exceptions to this law.

As things stand at present, they are the same as I stated them in the beginning of this paper. In terms of Kant's above-mentioned formulation of a categorical imperative, we have his thesis that a moral law is universal or unconditional. And we have the criticism of this thesis that it makes a moral law too rigorous, because it does not allow exceptions to it.

2

1. The moral law which is most frequently mentioned as the law to which there are exceptions is the moral law that one should speak the truth. And likewise the example of exception which is most frequently mentioned is

almost the same which Constant mentions, namely that of telling a lie in order to protect the life of an innocent person who was being pursued by a murderer and who had taken refuge with us. There is a slight variation of this example in the *Mahabharata*. I take this example as I find it in Herbert Herring's *Essentials of Kant's Theoretical and Practical Philosophy*.[7] In the *Mahabharata*, Kaushika, who was called *Satyavadin* because he had taken the vow to always speak the truth, sees some travellers, who were being pursued by robbers, take shelter near his cottage. The robbers come and ask Kaushika whether he had seen the travellers, and if so, where they were. Now, although being aware of what the robbers wanted, in keeping with his vow to always speak the truth, he tells them that he had seen the travellers and where they were. And then, of course, the robbers go on to do their job. In the *Mahabharata*, Kaushika is condemned for not telling a lie under the circumstances. There Krishna mentions this example to Arjuna 'in order to drive home the point that merely sticking to the vow for the sake of it, without serving the intent of the vow, would not only be a folly but even immoral."[8] Let me mention here just one more example of an exception which is not without similarity with the preceding two examples. Somebody is seriously ill. Somebody else who claims to be his well-wisher, makes it a point to visit him frequently, makes himself comfortable by his bedside and engages himself in an endless chit-chat with him. All this, needless to say, causes the patient great strain and much harm. The people tell the visitor politely and then even bluntly that the patient needs rest and the visits cause him great strain and much harm. But the visitor refuses to pay any attention, believing that he is really entertaining the patient and drawing him out of his present gloomy state. And then the people are left with no alternative but to tell the visitor a lie that the doctors have strictly forbidden all visits to the patient.

2. Let me take another moral law and exceptions to it. The law is: 'One should put into practice what one professes.' I have arrived at this law in the following manner: in Plato's *Apology*, where Socrates is on trial, Socrates mentions several reasons why he would not ask for mercy. In Plato's *Crito*, where Crito tries to persuade Socrates to escape from prison, Socrates mentions various reasons why he would not escape. In Plato's *Phaedo*, where Socrates is waiting to die, Socrates mentions an argument why a philosopher is willing to die. Now, suppose that after saying all that, Socrates is prepared to ask for mercy, is prepared to escape, and is unwilling to die. Then there is obviously an inconsistency between what he says and what he does, between his profession and practice. As a result, that is, as a result of this

inconsistency between what he says and what he does, we find that he becomes a subject of our moral condemnation, we say that he has done something which he should not have done or has done something immoral. We morally expect or require that if he says what he does, then he will also act up to it. And if he does not do so, if he deviates from his profession; then we morally condemn him. The above-mentioned moral law is only an articulation of this attitude on our part.

Now, in order to see exceptions to the moral law which I have mentioned in the preceding paragraph, let me take a specific instance of this law. The specific instance is that if Socrates professes, as he does on the basis of a certain argument, that a philosopher is willing to die, then with his own commitment to philosophy he should be willing to die. I will presently mention two exceptions to this specific instance. (1) Suppose that, as the time of his death draws near, Socrates is overtaken by what one might call the awesome natural fear of death, which he is not able to conquer, and consequently in one way or another he would like to avoid being killed. Then I am inclined to think that Socrates's unwillingness to die under the present circumstances, and not, say, under the circumstance that he would like to live in order to be able to visit his usual haunts and engage with people in his familiar conversations, would not be morally condemnatory but morally excusable. (2) Suppose a person has been falsely charged with some serious criminal offence, which also carries with it a grave penalty. And suppose that Socrates, and he alone, has in his possession evidence to the effect that this person has been falsely implicated. Then it seems to me that, in case he cannot make this evidence available in some other way, Socrates would be morally justified in avoiding death for the required duration in order to save that person.

3. Let me mention yet another moral law and exceptions to it. This is the well-known moral law that one should not break or go back on one's word or promise. I will presently mention two exceptions to it, just as in the previous case. (1) Suppose the following to be the case: there is a person who has gone underground resisting a dictatorial regime. There is another person, say, a young girl, who has undertaken to function as a contact between him and the world outside; she takes messages from him and communicates them to the world outside, and takes messages from the world outside and communicates them to him. However, time comes when the police are able to lay their hands on her. And then she is tortured to find out where the resister was. And when that does not succeed, the members of her family, her

parents, her brothers and sisters, and her other dear ones, are tortured in front of her. And then it is found that she cannot take that any more and lets the police know where the resister was. Here I am inclined to think that the young girl's going back on her assurance under the present circumstance, and not, say, under the circumstance that she was in some way lured by the police to tell them where the resister was, would not be morally blameworthy but morally excusable. (2) Again suppose the following to be the case: say, through her own conversations with him and through other people who may also have had conversations with him, the young girl has a firm indication that the resister has some deep personal grudge against the person who is in the seat of power, and as a result what he really wants is not so much to fight the dictatorial regime as to remove that other person from his seat of power or to do away with him. As a matter of fact, he would not even mind occupying the seat of power himself, endowed with the same dictatorial powers. Then it seems to me that the young girl would not only be morally justified in withdrawing her assurance, she may also be morally justified in going back on it and accordingly informing the police about the whereabouts of the resister towards preventing a future possible danger from taking place.

4. Let me mention just one more moral law and exceptions to it. This moral law, which many recognize it to be so, is that one should not inflict pain or death on a living being. Once more I would presently mention two exceptions to it. (1) Suppose there is an animal, say, a dog, who is suffering from some incurable disease, which it is a sheer agony to bear or which has put him into a coma. Then it seems to me that one would be morally justified in putting an end to his life in his own interest. Here the question may be asked whether one would also be morally justified in putting an end to the life of a human being in his own interest, when he was likewise suffering from some incurable disease, which it was a sheer agony to bear or which had put him into a coma? I cannot help answering this question in the affirmative as well, in the interest of consistency. But I would like to add one qualification in this case. The qualification is that, if the person has not been put into coma, then one should take his explicit approval before putting an end to his life. (2) Suppose there is an animal, say, a man-eater, or there is even a human being, say, an insane human killer, who is going around killing people and other living beings; and suppose there is no other way of bringing him under control; then it seems to me that one would be morally justified in putting an end to his life for the protection of one's own self as of others.[9]

I have mentioned above four moral laws and some of the exceptions to them. I need not mention any more of these laws and any of the exceptions to them. Although it is not a part of my present work, I may mention here in passing some of those laws which do not seem to me to have any exceptions to them. These laws include the following: 'A person who has been asked to adjudicate should do so impartially'; 'One should not take advantage of somebody's helpless position'; 'One should not make use of one's superior position, physically or socially or economically or in some other way, to take advantage of somebody or to humiliate him or to destroy him or something else of that sort'; and 'One should treat all living beings, *qua* living beings, as equal.'

3

In the first section above, I have mainly mentioned Kant's thesis that a moral law is a universally valid law; and the widespread criticism of this thesis that it is too rigorous in character, because there are exceptions to at least many a moral law, as, for example, there are exceptions to the moral law that one should speak the truth. In the second section above, I have not merely mentioned once more the moral law that one should speak the truth and even further exceptions to it than what is mentioned in the first section, I have also mentioned some more moral laws and exceptions to them. Here the question will naturally be asked whether I then support the criticism that Kant's thesis that a moral law is a universally valid law is too rigorous in character, that, in other words, a moral law is not a universally valid law. I see at present two alternatives to my answering this question in the affirmative. One of the alternatives is this: Kant may be right in maintaining that a moral law is a universally valid law, but the examples of moral laws which one may be mentioning, even the examples of moral laws which Kant may himself be mentioning, are not examples of genuine moral laws. The other alternative is this: again Kant may be right in maintaining that a moral law is a universally valid law, and there are evidently no exceptions to the examples of moral laws which one may be mentioning, or those which Kant may himself be mentioning, when they are properly reformulated.

Now, as far as the first alternative is concerned, while conceding that Kant may be right in maintaining that a moral law is a universally valid law, I do not deny that the examples of moral laws which one may be mentioning, or those which Kant may himself be mentioning, may not be examples of

genuine moral laws. And, as far as the second alternative is concerned, Kant may be right in maintaining that a moral law is a universally valid law, and I find it to be the case that there are evidently no exceptions to the examples of moral laws which one may be mentioning, or which Kant may himself be mentioning, when they are properly reformulated. Let me explain the point made in the latter part of this statement. And let me once more take the example of the moral law that one should speak the truth for the purpose. What is not infrequently held is that there is the moral law 'One should speak the truth', but there are circumstances, like protecting an innocent person's life or property or guarding somebody's well-being, when one would be morally justified in telling a lie, that is, there are exceptions to the given moral law. What I find to be the case is this: suppose there are exceptions to the given moral law, like the ones just mentioned, and suppose these are the only exceptions to it, then one can reformulate the moral law about speaking the truth as 'One should speak the truth, except under such and such specified circumstances' (rather than simply formulate it as 'One should speak the truth'). It will be noticed that, in the reformulated moral law, the excepting circumstances are not external to it (as they would be on the other formulation) but are its internal elements. And to this reformulated moral law there are evidently no exceptions. What I have said here about the moral law that one should speak the truth may be said about other moral laws as well to which there are said to be exceptions. The general form of all these moral laws when reformulated would be 'One should follow the given moral law m, except under the circumstances c.'

It would be illuminating to mention here a certain controversy between Paton and Moore. In his article, 'The Alleged Independence of Good,' which he contributed to the volume on *The Philosophy of G.E. Moore*,[10] Paton contends that the (moral) goodness of some of the actions is dependent upon circumstances. In this connection he gives the example of Sir Philip Sidney, who in dying resigned to a wounded soldier the cup of water which had been offered him. And he concludes from this that Sir Philip's action was good under these circumstances, while it would not be good (or as good) if he had been well.[11] Moore's correct and notable answer to this objection is this. It is not the case that the action 'a_1' is good under circumstances x, y, z, and the same action 'a_1' is bad under circumstances x_1, y_1, z_1. In reality, there are at present two different actions, the whole of 'the action a_1 under x, y, z' and the whole of the action 'a_1 under x_1, y_1, z_1' where x, y, z and x_1, y_1, z_1 do not signify two different sets of circumstances under which one and the same

action 'a_1' occurs, but essential qualities of two different actions. And what is good is the whole of 'the action a_1 under x, y, z' (not the action 'a_1' under x, y, z), and what is not good (or not so good) is the whole of 'the action a_1 under x_1, y_1, z_1' (not the action 'a_1' under x_1, y_1, z_1).[12]

One can express what I have said above differently also, and possibly more neatly. I have said above that given, say, the moral law that one should speak the truth, in respect of which there are circumstances,—like protecting the life of an innocent person who is being pursued by a murderer and who has taken refuge with us, or protecting the life or property of those whom somebody wants to harm, or protecting the well-being of somebody against encroachments,—in which one would be morally justified in telling a lie, that is, in respect of which there are exceptions; we can reformulate the moral law in such a way that these exceptions are accommodated within that law itself, and then to this reformulated moral law there are no exceptions. The other way of expressing it is this: again given, say, the moral law that one should speak the truth, in respect of which there are the said exceptions, what is happening is that there is the moral law that one should speak the truth, and there is, say, the moral law that one should protect the life of an innocent person who is being pursued by a murderer and who has taken refuge with us, which is higher than the former, and which, as a result, in a situation of conflict between them, supersedes it. Here it is not the case that the former moral law is not universally valid. What is the case is that both the moral laws are equally universally valid, but the latter is higher than the former, and which, as a result, in a situation of conflict between them, supersedes it. In fact, by implication, one may go on to add in this place, if, in a situation of conflict between them, one follows the lower moral law, then one does what is wrong; just as, in the earlier mode of expressing things, one does what is wrong in doing such and such in the face of its excepting circumstances.[13]

I have said above that given, say, the moral law that one should speak the truth, this moral law is superseded by, say, the moral law that one should protect the life of an innocent person who is being pursued by a murderer and who has taken refuge with us, which is higher than the former, in a situation of conflict between them. From the second and third examples of moral laws and exceptions to them which I have mentioned in the second section of this paper, it will be seen that there is yet another thing on account of which it would be morally in order to supersede or not to follow a given moral law. This thing is the non-possession by a person of some exceptional quality

(qualities) which is required to follow that moral law, for example, the non-possession by a person of the exceptional quality of being able to suffer to the utmost extent towards keeping his assurance. Thus, as I find, there are two things on account of which it would be morally in order to supersede or not to follow a given moral law: the first thing is a higher moral law, in a situation of conflict between the two; and the second thing is the non-possession of some exceptional quality (qualities) which is required to follow a given moral law. We can say that, in the former case, one is morally justified in superseding or not following a given moral law; and, in the latter case, it would be morally excusable to supersede or not to follow a given moral law. These, as I find, are the two excepting circumstances in respect of the pursuit of a given moral law.

In the preceding paragraph, I have talked of an act being morally justified, or an act being morally excusable. I have also talked of these two kinds of acts in sub-sections two and three of section two of the present paper. For the purposes of this paper, let me explicitly define them as follows: an act is morally justified, if in it one follows a moral law; in case of conflict between two moral laws, one of which is higher, one follows the higher one; and in case of conflict between two moral laws, both of which are of equal rank, one follows either of them. And an act is morally excusable, if in it one does not follow a moral law on account of one's non-possession of some exceptional quality (qualities) which is required in following it.

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I may sum up in this place what I have tried to say in this paper. (1) I have mentioned Kant's thesis that a moral law is of the nature of a categorical imperative, and that one of the ways in which a categorical imperative may be expressed is in terms of its being universally valid. (Section 1) (2) I have mentioned the widespread criticism that a moral law is not a universally valid law, because there are exceptions to it, as, for example, there are exceptions to the moral law that one should speak the truth. In this connection I have referred to Constant and Kant's response to what Constant has to say. (Section 1) (3) Besides the moral law that one should speak the truth and exceptions to it, I have mentioned some other moral laws and exceptions to them. (Section 2) (4) However, I have not concluded from this that a moral law is not a universally valid law. On the other hand, I have reformulated a moral law in such a way that there are no exceptions to a moral law as so refor-

mulated. I have gone on to express a moral law in yet another, and possibly neater, way. (Section 3) (5) I have mentioned two kinds of excepting circumstances to our following a moral law. (Section 3) (6) I have defined a morally justified act and a morally excusable act. (Section 3).

Notes and References

1. *The Moral Law or Kant's Groundwork of the Metaphysic of Morals*, translated by H.J. Paton, Hutchinson's University Library, 1951 reprint, p. 88.
2. 'Über ein vermeintes Recht, aus Menschenliebe zu lügen' in Kant's *Kleinere Schriften zu Geschichtsphilosophie, Ethik und Politik*, Felix Meiner Velag, 1959. Statements reproduced from this essay in the present article are in our own translation.
3. Kant's *Kleinere Schriften*, p. 201.
4. Ibid.
5. (1) Kant's *Kleinere Schriften*, p. 202.
   (2) Does it even make sense to talk of one's right to one's own truthfulness, that is, to one's speaking the truth as one knows or believes it to be? Should one not rather simply talk of one's duty to one's own truthfulness?
6. Ibid.
7. Ajanta Publications, 1993, chapter on 'Is there a Right to Lie from Altruistic Motives?', p. 109.
8. Ibid.
9. Gandhi would consider killing a living being morally in order, when it is unavoidable (i) for self-preservation (using insecticide), or (ii) for the protection of one's own self and that of others (killing wild beasts when they are a danger), or (3) in the interest of a living being itself (mercy-killing).
10. The Library of Living Philosophers, Vol. IV, edited by Paul Arthur Schilpp, Northwestern University, 1912.
11. *The Philosophy of G.E. Moore*, p. 126.
12. *The Philosophy of G.E. Moore*, pp. 618–20.

    In this connection, also see Hare's *The Language of Morals*, Oxford University Press, 1952, 3.6, pp. 52–3, where he says: 'The fact that exceptions are made to them (our principles) is a sign, not of any essential looseness, but of our desire to make them as rigorous as we can. For what we are doing in allowing classes of exceptions is to make the principle not looser, but more rigorous. Suppose we start off with a principle never to say what is false, but regard this principle as provisional, and recognize that there may be exceptions. Suppose, then, that we decide to make an exception in the case of lies told in war-time to deceive the enemy. The rule has now become "never say what is false, except in war-time to deceive the enemy." This principle, once the exception has been made explicit and included in the wording of the principle, is not looser than it was before, but tighter. In one large class of cases, where previously the possibility of exceptions was left open and we had to decide for ourselves, the position is now regulated: the principle lays down that in these circumstances we may say what is false.' Words within brackets in this quotation are our own.

    The statement in the main text concerning the controversy between Paton and Moore I have reproduced from my article, 'Kant's Groundwork of Morality,' published in *Studi Internazionali Di Filosofia*, Autumn 1971, p. 150. In the same article, in footnote 113, I have also quoted Hare's statement.
13. In his *Immanuel Kant's Moral Theory* (Cambridge University Press, 1989), in part III, section 12 where he discusses Kant's reply to Constant, referring to Kant's moral law about speaking the truth and Constant's contention about a person's being morally justified in not speaking the truth in order to save the life of an innocent person who has taken refuge with us, Sullivan maintains that it would be within Kant's own theory to hold: (i) what we have here are two moral rules, the moral rule about speaking the truth, and the moral rule about being benevolent, in conflict; and (ii) if one did not follow the moral rule with a stronger obligation, in this case the moral rule about being benevolent, then one would be doing something which is not morally right (p. 177). I agree with Sullivan in his maintaining this.

An Enquiry into the Cases of Normative Ethics and Applied Ethics

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We have made considerable progress in the field of ethics. However, even now, there are philosophers who do not agree that normative ethics and meta-ethics are within the broad field of ethics. The most sharp disagreement is about applied ethics. The main objective of this paper is to show that normative ethics, meta-ethics and applied ethics are all included within what we call 'ethics' because neglecting one is to encourage an ethics which is not 'ethics proper'. It may be argued that neglecting applied ethics, in particular, is to encourage a moral philosophy which is not moral. At the outset it is very important to explain what normative and meta-ethics consist of and why they are intimately related in the broad field of ethics.

Normative ethics or substantive ethics attempts at answering the fundamental questions in morality, i.e. what is good or right in a particular case and what is the basis of judging something as good and right. Hence, normative ethics mainly deals with the basic principles or standards of morality about, their nature, about the secondary moral rules that follow from them and the way such standards are helpful in judging the morality of intentional human actions. Normative ethics thus supplies grounds for moral evaluation. It also deals with questions about our rights, duties, obligations etc.

Meta-ethics, on the other hand, deals with logical and semantic questions like, what are the meanings and uses of moral terms (good, right etc.) and moral judgements ('X is good' etc.)? What justifications or proofs can we give in favour of a moral principle? How are ethical evaluations justified? What do we mean by 'freedom' and 'determinism'? etc. It is very important to discuss meta-ethical questions in ethics, because meta-ethics encourages analytical and critical thinking about moral language and moral evaluation. But to call meta-ethics 'ethics proper', is toot rite. There is no doubt, however, that there are many moral thinkers who believe that the task of ethics

proper is to engage in meta-ethical questions. This amounts to the growth of 'exclusive meta-ethics', neglecting normative and applied ethics completely. We have to face this kind of neglect towards important branches of ethics because all of us may not like this idea. But to face this challenge we have to first of all know where the challenge comes from and what the reasons behind such challenge are.

The early positivists were extreme skeptics who hold that the whole gamut of ethical discourse is as meaningless and as nonsensical as are the religious and metaphysical discourses. This is so because ethical propositions are either descriptive statements about ethical situations and responses, which statements belong to the empirical science of psychology and not ethics at all in its usual normative sense.[1] The other type consists of the normative statements which belong to ethics but is as nonsensical and meaningless as metaphysics because these assertions have no empirical basis and are thus unverifiable. If normative statements turn out to be nonsensical and meaningless, there can be no moral standard as well and all discussions of moral merit, freedom or responsibility lose significance. Naturally, if we cannot sensibly speak of moral standards, it is useless to think about moral evaluations as well. In fact 'good', 'bad', 'evil' etc. are not evaluative words in the sense that we normally think them to be. They are rather words expressing our *emotions*. We may thus say that the natural outcome of extreme positivism has been the complete rejection of normative ethics. However, the effort was so self-defeating that with the death of normative ethics, the possibility of ethics was nearly put in the grave, until softer versions adopted a new course in ethical discussion. This is *emotivism*. These people still doubted that it is sensible to speak about ethical standards and their justification, for the standards in fact express the same emotive expression of a person who speaks about them, as are the ethical judgements. This was said because people like Ayer did not think that the entire gamut of ethical language can be put into oblivion because they may be *non-cognitively meaningful* as they are the expressions of the emotion of those who use this language. Ayer says that 'in so far as statements of value are significant ... they are simply expressions of emotions which can be neither true nor false.'[2] With this, Ayer also paved the way for 'exclusive meta-ethics' in confining the task of moral philosophy to the study of ethical language and nothing else. This is in perfect consonance with another commitment of the postivists that 'philosophy is the logical analysis of language'. Hence, the positivists' and the analysts' claim that the task of ethics can be nothing more than the 'analysis

of ethical language'. Ayer says that ethics consists of 'propositions which express definitions of ethical terms, or judgements about the legitimacy or possibility of certain definitions.'[3] However the natural outcome of such a line of thinking is to forget that the proving and justification of ethical theories are also interesting meta-ethical issues in ethics. The emotivists need to reject this as well, for ethical theories being no theories at all, are reduced to a bundle of emotive expressions. As such ethical theories cannot be accepted as the basis of the evaluation of human actions. There is thus no need for having any standards in morality and no need to prove or justify them. With this, they accept that there are no moral or evaluative terms or concepts in the real sense of the term because these are 'pseudo-concepts.'[4] Hence these terms serve no purpose other than to express emotions of the speaker who uses them in ethical language. 'Good' is thus not an ethical concept or evaluative term at all, and evaluating actions, is no business of the philosophers. However, we may go on analyzing ethical language qua philosophers.

The emotivists were however a divided lot by the time C.L. Stevenson forcefully joined the fray of ethical scepticism. This was owing to the fact that he was not as drastic as declaring that being basically emotive in nature, ethical language serves no useful purpose. Stevenson was of the opinion that apart from reflecting the emotions, ethical language contains such notions as 'good' and 'bad' which also evoke either ethical agreement or disagreement. Not only this, he finds in these words and in ethical judgements, the element of 'persuasiveness'. Persuasive language has many uses and ethical language as such cannot be ignored as serving no useful purpose. Stevenson says, 'it is certainly mandatory that the term emotive be kept as a tool for use in careful study not as a device for relegating the nondescriptive aspects of language to the limbo.'[5] With this, Stevenson also moves a step beyond extreme skepticism in order to recognize in ethical judgements the place of *descriptive element* and has gone a long way towards acknowledging a validity in ethics which seems to be first denied by linguistic analysts. However, there is no doubt that the sceptics had no place for normative and applied questions in ethics in their scheme. We find this with Schlick's clear admittance of the fact that 'the moral valuations of modes of behaviour are nothing but the emotional reactions with which the human society responds to the pleasant and sorrowful consequences ... .'[6] Astonishingly Schlick was not too far from developing an ethical theory himself by holding that 'in human society, that is called good which is believed to bring the greatest happiness.'[7]

Given this background of discarding substantive ethical questions from ethics proper and confining ethics to 'exclusive meta-ethics', we have to prove a negative point that is, this is *not* 'ethics properly so called'. The extreme positivists and the emotivists based their arguments on the fact that moral judgements do *not* attribute some intelligible characteristics or relation to the objects or actions which they judge and in denying this, these thinkers expose unilateral views regarding *moral experience*. However they fail to see one very important aspect of 'moral experience', that is, we have enough *empirical basis* to show that moral terms, in fact, become *descriptively meaningful* in the real contexts of their uses in moral language. Again, we have enough *empirical basis* to show that moral standards become *descriptively meaningful* as well. These thinkers also forget that in so far as the moral experience is concerned, moral judgements present themselves in these experiences as well-*reasoned* judgements, but by saying that moral judgements are only emotive judgements, they miss an important point. If moral judgements are essentially emotive in nature and have neither empirical anchorage nor any reason behind them, they are doomed to be equally true and false, and as such, it will be difficult even to make any *moral distinction* with the help of these judgements. If this be true then the search for moral worth turns out to be a hopeless venture. It will be equally hopeless to search for the moral truth. All these blunders committed by the extreme positivists and emotivists compel us to say that they did not even understand the basic truth that they are conceiving of an ethics which is wholly *unempirically*-based and they take up the task of linguistic analysis of ethical language, which is completely at variance with moral experience and ordinary linguistic usage.

No doubt Schlick and Stevenson brushed off extreme positivists' orthodoxy and recognized that moral judgements are at least based upon and in part verifiable by factual judgements. They also recognized the truth that the ethical language, may have more functions that one, and as such, approbative and persuasive functions were discussed. But they were still lurking in the realm of 'exclusive meta-ethics' by holding that establishing moral theories is needless. The basic prejudice that haunts their minds may be that we can speak of *only one or a proper function of ethics as is* the case with philosophy, the proper function is the 'logical analysis of language'. Hence, the peculiar self-made division of labour still lulls the later emotivists to believe that ethical theories and their justification are needless. If we consider logic itself as a branch of philosophy, obviously it is not philosophical analysis of language; rather it provides the basis of such analysis. Hence, philosophy as a branch of knowledge cannot be the only logical analysis of language. Ethics also cannot be the only analysis of ethical language because the language of ethics is a testimony to the fact that apart from serving many functions, it also serves to *evaluate* the *worth* or *value* of *moral actions* and we have enough empirical basis to claim this. The evaluative functions presuppose ethical standards as well. Hence it is perfectly legitimate to say that normative ethics is *within* ethics.

We will also have to understand that to speak of these standards is vacuous, if we do not conceive of the disposition of these theories to resolve value-laden problems. However, in ethics, we may speak of the primacy of functions as a matter of *strategy*. Plato's and Moore's strategies were to move from meta-ethical questions to the construction of an ethical theory (which is a normative ethical discourse). Whereas, Mill's strategy is different. He starts with the explanation of a standard and then moves on to the meta-ethical task of the justification of the standard of morality. Hence, the strategic primacy of meta-ethics is not to say that ethics is just meta-ethics. The same is true in case of normative ethics. It is needless arguing that there is a first order task in ethics or that ethics is what constitutes its first order task. All the normative, meta-ethical and applied ethical tasks are of equal importance in ethics. Hence 'exclusive meta-ethics' is to encourage an ethics that forgets this basic truth that there are more than one functions of ethics. As such, 'exclusive meta-ethics' is not 'ethics-properly so called'. However, to prove this positive point that normative ethics and meta-ethics are closely related and not only within ethics, we have to consider ethical judgements, not in isolation, rather in relation to the need for passing such judgements, the functions or uses of these judgements, the actual *act* of judgement in a real-life situation and the basis of passing such judgements.

Let us consider an ethical judgement (the sense in which an emotivist understands it and finds it to be meaningful). Suppose I say, 'Telling truth is good.' The emotivists say that this judgement may be meaningful only in relation to the *assertor* who is using it to express either his emotions towards 'truth telling' or to express that he approves 'truth telling' or he aims at persuading others that they also 'tell truth' because he approves of it as good and others ought to do so as well. One thing is clear by now; the moral term 'good' in this context of its use may be meaningful in more senses than one. Another thing is that the moral term 'good' has no doubt an *evaluative function* as well for it clearly *evaluates* an intentional action of a human being, viz. 'truth telling' as 'good' and thereby clearly states that 'truth telling'

has a *moral value or a moral worth.* Hence 'good' is not simply a term in the sense that it has been taken from the vast repository of English language; rather, it is a term which is *used* distinctly to evaluate intentional human actions and is thus an *evaluative term or a value term.* No doubt in moral evaluation of the action (truth telling), the emotions, feelings, approbation, agreement, disagreement etc. are all very important (interestingly, even this can be known in a real-life situation with the aid of actual experience and not a priorily). But to say that this is everything is to forget that this moral judgement is not only persuasive and prescriptive in nature, but *evaluative* as well. Hence, moral terms are also evaluative terms and moral judgements are evaluative judgements. There is no need at all to lose sight of the evaluative function of these terms and judgements because recognition of this truth is in no way detrimental to what emotivist uphold. It is, in fact, an important aid to a proper understanding of the nature and function of ethical terms and ethical judgements. Moral judgements are infact not only expressive of emotions, they are also about the value of *actions* or about the worth of *actions.*

There may be no doubt however that a *non-philosopher* is well aware of the fact that he is expressing his emotion towards 'truth telling' and that he may be approving it, persuading others and may even prescribe it for others to do so. But does a 'non-philosopher' have the knowledge that he is in fact evaluating a moral action and for that reason he ought to presume a moral standard? Any sane social person, who lives an active moral life, mixes with 'moral agents', influences others with his intentional actions and is also influenced by the actions of other peoples has varied moral experiences, which are aids to moral knowledge. It is a 'stark truth' that while judging 'truth telling' as 'good', one is in fact judging an action as having moral worth. One is sure that what he is evaluating is not a thing. He is also aware that while he is evaluating, he has enough *reasons* for doing so. This later knowledge takes us to the specified theoretical consideration of the *standards* of evaluation. Hence, the knowledge of the fact that for moral evaluation, we have to take recourse to a moral standard as well, is also not possible without social interaction and moral experience obtained thereby. Readers may be worried about the fact that I have *assumed* many things qua philosopher and have not put myself in place of a non-philosopher. The 'stark truth' I was speaking about is not a matter of either intuition or pure reason, it is again a matter of *experience.* I shall come to it at a proper place. For the moment it is sufficient to say that the knowledge of moral evaluation is impossible

if we do not have an actual urge for evaluating the worth of an action. This urge is a moral urge that a social being feels, for he himself participates in active moral discourse and active moral life in the society. If we are bereft of such an urge and do not have an inclination for moral interaction with other beings, we are devoid of all moral experience and are thus in a hopeless state of knowledge. It is then we feel that 'good', 'bad', 'right', 'wrong' are *mere* terms, waiting there to express our emotions and nothing else. They have many things to do, this is what is important to know. In fact moral experience is so crucial and unavoidable that it hardly makes any sense to distinguish a philosopher from a non-philosopher on the basis of the need for such an experience in moral life.

Nevertheless, a philosopher who has a professional training in ethics, may come to realize that there may not be only one standard of moral evaluation. He may look into the soundness of the logic behind accepting a theory to be worthy of judging moral actions. But even an ethicist cannot overlook the fact that the moral experiences that are made possible by social interaction are really unavoidable. Once we understand this, we come to know that if one task of ethics is the analysis of ethical language, the other task is to enquire about the basis of moral evaluation. As such, meta-ethical and normative enquiries are both important and closely related. An ethical enquiry certainly leads to five things: (a) moral evaluation of intentional actions; (b) conceiving the basis of moral evaluation; (c) the soundness of the logic of accepting ethical standards to be worthy of judging the morality of actions; (d) the nature and function of ethical terms and ethical judgements; and (e) the application of ethical experience and ethical knowledge to resolve moral crisis. (c) and (d) are included in meta-ethics, whereas (a) and (b) are included in normative ethics. It is needless to argue too much about the fact that (a), (b), (c) and (d) clearly state that meta-ethical and normative ethical enquiries are closely related in ethics proper. But we cannot overlook (e) as well. We shall have to justify this elaborately.

Yes, there may be serious concern about the significance of moral experience itself because such an experience may lead us to the gross acceptance of social norms and customs as the basis of moral evaluation. If this be the case then another sceptical line of thought comes into the limelight. This speaks of the fact that there are no moral standards and moral evaluations at all because what is there is the *mere acceptance* of social norms and customs, which *cannot* become a standard, for they are intrinsically changeable and are thus highly relative. There can be no basis of moral evaluation at all. Again,

one may think that experiences of social customs cannot help us in establishing a general moral theory because a moral agent transcends all experience to take recourse to *intuitive subsumption* while he is involved in ethical generalization. Let us consider at face value the capacity of the minds of individuals to frame a moral theory with the help of either pure reason or intuition. These may be appaling possibilities in the justification of ethical principles. Hence, we may believe that it is intuition and not experience which is crucial in morality. We must not forget that devoid of an active social life and incessant moral experience, a sane person will not even feel an urgency to think of a moral standard of evaluation, what to speak of justifying it. In fact the empirical basis of morality is the starting point in morality. Morality needs the help of reasoning but without actual moral experience nothing can proceed. No rational insight about moral standards and no *a priori* conception of values and standards can help us in morality unless we conceive of homosapiens living here in this world, having intricate relationships with the entire ecological community, acting, influencing, judging and evaluating; we cannot thus speak of a sensible moral philosophy without moral experience. But this does not imply that we follow social rules and customs in moral evaluations. Having experience in the society and following social rules and customs are two different things. We may have constant moral experience in the society but we may not follow a particular social rule and custom. We may like to change them or revolt against them or like to correct them. In fact our ideas about moral standards and about their legitimacy in moral evaluation have direct relation with our moral life, moral intercourse and moral thinking and not with fixed social customs. Tragically, if someone thinks it to be pertinent enough to follow social rules in morality, he may be rightly following a set of relatively useful rules for himself and may not necessarily generalize it as a standard of morality for all times to come and for all societies. Whereas a need for a generalized ethical principle other than the social rules may help us to frame such rules, which are useful enough irrespective of the value of all social customs and such general ethical principles ignore the change of time. That this is possible, is again a matter of experience. Active moral life in a society and experiences obtained therein are the prerequisites of holistic ethical knowledge—a knowledge that combines meta-ethics, normative ethics and applied ethics. Let us now finally bring closer the linguistic, extralinguistic and the practical aspects of human life because this is the cornerstone of moving towards an understanding of applied ethics. But before that, another point has to be made clear.

Semantic considerations in moral philosophy consist in language distinctions, which are not beyond the reach of the non-philosophers. We also have to understand that the language of moral philosophy is used also for analyzing *aspects of human life* which are not mere language distinctions and mere emotive exhortations of those who use moral language for a practical purpose. Language is one aspect of human life and morality is another one. Both language and morality are related in so far as language is used for moral distinctions, expressive of moral feelings, emotions, sentiments and for the clarification of the moral points of views. But what is of utmost importance is to understand that moral language (including moral terms used therein), is instrumental in referring to the 'concrete demands of actions' in relation to an individual living in a society. The word 'good' in evaluative statement 'truth telling is good' refers to the 'concrete demands in action' with which a person is confronted in his social relation.[8] The 'concrete demands' are *facts*, which we must consider seriously in moral philosophy. There is no doubt that the terms 'good' may be considered apart from moral considerations; however, in so far as it is used in moral evaluation, we cannot avoid the manifold 'concrete demands in actions' with which a person is confronte in social contexts. The terms like 'good' are, of course, partly useful in expressing emotions of an evaluator. That they are useful in prescribing a course of action is also true. However, every evaluative term in the vocabulary of moral philosophy is not devoid of factual significance. This is so because these terms in an intelligently thought-out moral philosophy are 'factual' when they refer to aspects of human life or refer to 'facts' in the contexts in which men live. Ben Kimpel brings out the truth elegantly by saying that, 'the terms "right" and "good", for instance, refer to realities which are "factual" ... . The realities referred to in moral philosophies are not, of course, the realities which are studied in some of the specialized sciences. But this fact constitutes no disparagement of the vocabulary of moral philosophy.'[9]

We should understand therefore that in cases of the distinctions of moral worth, we refer not only to language distinctions and to other conventional distinctions, but also to human life. Now as we consider the very *basis* of the moral distinctions or distinctions of moral worth, we certainly have to seriously take human experiences and social interactions into consideration. The confusion that the very basis of moral evaluation is devoid of an empirical consideration ought to be dispelled. Once we do this, we will come to know that ethical first principles are neither purely emotive exhortations nor

pure *a priori* constructions of our mind. We have just seen that an evaluative judgement like "truth telling is good" implies the sense that 'truth telling' is something which is 'morally good'. This has any meaning at all if 'truth telling' is a moral action which is sensible to speak about and it is sensible to speak about its moral worth. We are also concerned about whether or not it really contributes to the *moral quality* of human life. Whether or not an intentional human action like this is at all contributing to the moral quality of human life is a matter of empirical enquiry again. I would like to remind here that some intentional human actions may not be contributing to human life in the *real* sense if overlook the quality of the life of the entire ecological community as well. Whatever it may be, it is very clear that the goodness or moral worth of actions like 'truth telling' etc. can be evaluated as such in the context of a generalised principle of morality or keeping in view a moral ideal. A possibility of such a moral ideal or a moral basis leads us to construct a moral theory. Moral ideals thus speak of intrinsic worths, which are *desirable* in life and which are the basis of the evaluation of moral actions. It is interesting to notice that the conception of a moral theory may not be groundless. Rather, it has to be justified. Most of the time we think that the justification can be something devoid of experience because moral principles are not experienced. Rather, they are either logically proved or intuited generalizations. I have already remarked how baseless it is to speak of intuiting a moral principle without actual experiences in terms of social and human interactions. It is also useless to have an intuited principle and not to think that it is desirable and worth contributing to the quality of human life.

We also know that the establishment of moral principles on the basis of strict deductive and inductive rules is fraught with danger. We may however speak of not proving but *informally justifying* such principles. In that case, informal justification is not merely subjective whim or psychological in character; it may not be according to strict rules of logic but may be *logical.* Whatever it may be, it still has a strong empirical anchorage because the *instances of human interactions* in the *real life situation* may be strong grounds for informal justification of a generalized ethical principle. Hence, even if we leave out strict deductive and inductive proofs in the establishment of ethical principles, either informal justification or logical justification or intuitive subsumption is not devoid of an empirical consideration. The obvious reason is that moral ideals, their conception, justification and desirability make any sense at all if we do not lose sight of the life of the homosapiens and their interactions with other members of the ecological community. No

moral theory can be even conceived of without this basic, empirical consideration. Now that we have made enough advances in the field of ethics, we will not be ready to consider divine standard as a serious possibility. Yet, if we reflect on the nature of it, and think that it has any value at all, it has to be seen whether or not in the real life situation it has any relation with the quality of life of the homosapiens. I would thus like to add that any moral theory, deontology or teleology or divine standard is moral, if it contributes to the quality of human life in the real sense. And for this, we ought to seriously consider the factual aspects of human life. The readers ought to be careful here to notice that what I mean to say has nothing to do with the justification of any one moral theory; I am trying to bring about the basic truth of a *moral philosophy which is moral.* I must also remind the readers that it is now that we must realize how important it is to consider together the questions of normative ethics (about a moral ideal) and the questions of meta-ethics (about justification of moral principles and linguistic concerns in evaluation). Both these are inseparable parts of a whole called ethics and both are equally important.

I believe that we have by now become equally concerned with the 'quality of the human life' and the 'real-life situations' in considering in detail the fundamentals of a moral philosophy having a moral worth. One who really does not lose sight of these things can easily understand that ethics is just not normative and meta-ethics, it is something more. We thus arrive at understanding the fact that applied ethics or practical ethics is *within* ethics and to neglect it is to neglect holistic ethics, which includes an understanding of applied ethics as well.

It is now that we must know what applied ethics really is and why it is different from the application of ethical codes, maxims and commands. Applied ethics is involved in considering one or more *value-laden problems* in the society in which we live so as to find out how they may be resolved and what set of practical decision-taking rules ought to be framed which have moral face. In other words, applied ethics consists in formulating practical decision-taking rules (having not only practical value but moral value as well) in order to resolve value-laden problems in an emphatic manner. Nowhere did I say that such problems are supplied by non-philosophers because it makes no sense to say that. No one supplies value-laden problems; value-laden problems are there, evolving, growing, changing, fizzling out in our societies. They are to be identified by us to resolve them. I have also not said that philosophers having knowledge of ethical theories act as moral saviours to

resolve moral crisis by pressing into service any one or more ethical theories. This is as non-sensical as the earlier belief. A value-laden problem in fact cannot be resolved emphatically and practical decision taking rules having moral value cannot be framed by a philosopher alone. It needs *corroboration of moral viewpoints.* I have been stressing that every sane, social being has moral experience and optimum moral knowledge; as such, every person may have a moral viewpoint regarding any ethical dilemma. Philosophers may have specialized knowledge of ethical theories in addition to the moral experience and moral knowledge that everybody has. But this does not prevent a philosopher from corroborating his ethical viewpoint with others (philosophers and non-philosophers). This may be extremely helpful in coming to consensus in framing practical rules and resolving value-laden problems. Once we are involved in a cooperative venture like this one, we are involved in applying ethics. The role of the philosopher may be unique. He may encourage moral discussion, he may point out the moral hunches a person has, he may point out the nuances between the moral points of view and their relative advantages and disadvantages in resolving a moral impasse, he may try to smother moral disagreement and most importantly, he may help in reaching a moral consensus to frame practical decision-taking rules having moral value. A philosopher is thus just one important party in applying ethics. But he needs others as well because in the absence of other parties, there may not be any corroboration of moral views, we may not know how different people would like to resolve a moral problem and what moral theory or theories figure prominently in resolving a value-laden problem and in framing practical rules in the society. In an applied ethics venture, a philosopher is not an ethical vanguard, he is an ethical corroborator. Further, we may see that the philosophers and the non-philosophers need not engineer normative principles in an artificial, mechanical manner to face a moral crisis. Corroboration of moral viewpoints, reaching a consensus, solving a problem and framing rules does not presuppose moral engineers (the philosophers in particular). Hence, applying ethical theories need not mean moral engineering by ethics experts. But, the philosopher has a unique role to play in this regard. He may reflect on ethical corroboration and the outcome of such corroboration to *discover* the way one or more ethical theories have been helpful in resolving a moral crisis and in framing practical rules. This is the application of the *specialized ethical knowledge* of a philosopher to know and let people know about the *practical* or *applied value* of a normative principle. This is a purely theoretical venture, may be done in perfect isolation, having

informative and educative value in the society. This posterior, theoretical effort of a philosopher is one aspect of applied ethics which has academic value; may be in the long run, in a well-informed, democratic society, where applying ethics has become a continuous process and a social creed, it may contribute to the growth of the moral knowledge of all concerned people. If this happens, applying ethical knowledge has a more sound basis, and in the course of ethical corroboration to resolve moral crisis, it is sure to play a vital role, about which we may not be conscious. In fact, ethical theories (normative) are not to be applied just as a tool in a tool box is used to mend something. In an applied or practical ethics venture, we do not apply an ethical theory like that; we may corroborate ethical viewpoints and then discover what ethical theory has been most fruitful in resolving a moral problem. And, as I have said, if this becomes a national creed, the population may be informed about these theories and we may find, to our astonishment, how wonderfully all of us partake in ethical discourse and that ethical theories reflect themselves in the discourse, waiting to be discovered by us. Let us think rationally. The construction and justification of normative ethical theories are historical facts but that they are potent enough in solving moral crises is a matter of discovery only when we are involved in ethical corroboration. It is then we come to know and let others know about such intrinsic practical value of a moral theory. Hence, in applying ethics (a) a value-laden problem has to be identified; (b) corroboration of moral viewpoints in resolving the value-laden problems has to be initiated by a philosopher; (c) moral consensus has to be reached in order to resolve a moral problem; and (d) philosophers may then analyze the whole discourse to discover the way an ethical theory or many ethical theories have been useful in framing practical rules in society and thus in smothering moral problems. This may be informed to the public as well. It is clear that applying ethics is not applying any one theory by a philosopher. However, whether theories are practically useful or not is a matter of academic enquiry.

One may wonder, given this sense of applying ethics, if we can really apply ethical theories. We must be careful that the sense in which I have considered appplying ethics to be, is not only 'applying ethical theories' by an ethics expert. There is no point in thinking that 'applied ethics' is philosophers applying ethical theories (if we fall in this trap, we start thinking that applied ethics is ethicists' business and ethical theories are used as tools in a tool box). That applying ethics includes all the four things which I have mentioned (a, b, c and d), is again not a matter of theoretical jugglery; rather

it is getting involved in applying ethics with others. If we are not involved in it, we can never know that ethical theories are not mere outcomes of theoretical churnings of ethicists, rather they have tremendous applicative or practical value. That we apply ethical theories in reality is a matter of discovery, a discovery arising out of actual participation in inter-subjective corroboration. Applying ethics is thus not merely choosing one theory or the other to solve a problem, but to bring people having ethical knowledge and ethical experience together to face moral impasse and to frame practical rules having moral value. Applying ethics may be thus included within the moral philosophy which is moral because it does not let moral philosophy perform mental gymnastics, it brings ethical knowledge into action, not in isolation but in cooperation. Let us try to do this in a democratic set-up to discover that normative ethical theories are really applied by us. It is a matter of grave concern that even after almost sixty years of the progress of applied ethics, we do not understand that in the expression, 'applied ethics', 'ethics' is not 'ethical theories', rather it is something more. The main tone of 'applied ethics' is 'applying ethical knowledge' aided by intersubjective corroboration to resolve moral crisis. Again 'ethical knowledge' is not to be taken as 'knowledge of ethical theories', it is rather the knowledge of the different valuable ways in which social beings face moral dilemma and resolve them. Moral knowledge includes the knowledge of the valuable ways in which social beings judge intentional actions for their moral worth. Interestingly the moral knowledge of the non-philosophers may reflect the features of what has been outlined in an ethical theory. This is a matter of coincidence, which an ethicist may discover and let others know about it, and if there are incongruities involved in ethical theory or theories, an ethicist may persuade others to see it and have necessary changes in their moral views. If one participates in such a corrective process, one enriches one's ethical knowledge.

However, the analysts may not be satisfied because they may not believe that people have the 'moral authority' to apply ethics and they may not believe that there may be 'value-laden problems'.

The challenge of the analysts may be framed as follows: 'Philosophers have no moral authority.' In fact, nobody has that authority. Hence, it is pointless to speak of somebody having the authority to apply ethical theory. So why should philosophers in particular poke their noses in the business of other professionals and what if nobody applied ethics? J.L. Gorman puts this aptly in his paper 'Philosophical confidence' in J.D.G. Evans edited '*Moral philosophy and contemporary problem*: 'Analytic philosophers, if they are

true to their training, never forget the first lesson of analytical philosophy: Philosophers have no moral authority ... . they never forget their second lesson of analytical philosophy either, nobody else has any moral authority.'[10]

The problem is, why should the analysts think that applying ethics is to conceive of somebody having an 'authority' to call into service the moral theories to solve practical problems having a moral dimension? Yes, it is true that neither philosophers nor non-philosophers are the sole authorities of application of ethics, yet, it is true that both may have enough basis for *corroborating* their views to apply ethical theories. Interestingly, applying ethics does not presuppose any authority as such; it however demands *inter-subjective corroboration.* The basis of the application of ethics by all philosophers and non-philosophers is that ethical theories are not theoretical constructions to contemplate upon, rather they have great worth in solving moral impasse, to take moral decisions and to frame practical rules. However, the fact that a moral ideal is valuable enough to resolve moral dilemma is not the same thing as thinking that a moral ideal is best suited for the resolution of *all* problems. That this is true is also a matter of experience and well-reasoned thinking. That moral ideal actually contributes to achieving the quality of human life is a matter of experience and well-reasoned thinking. Holistic knowledge of morality and living a moral life are both crucial in morality. Living a moral life is what is directly related to the application of ethics (in the sense in which I have been speaking). This simple truth has to be grasped by the analysts, otherwise analyzing moral language will take us nowhere. It is thus in bad taste to ask who has this authority, because none is authoritative, although all of us try to find enough confidence in moral decision. This confidence comes from the range of *our* moral experience, moral knowledge and corroboration of moral views. This transcends the barriers of individual and *specific professional knowledge.* Applied ethics is thus a cooperative effort or effort of collective mind and corroboration between different professionals. It bears the marks of scientific method. Applied ethics thus demands the possibility of *collective morality and interdisciplinary* corroboration of views regarding a practical problem in society that has a moral face. Ethicists are not vanguards of applied ethics, nor are the non-philosophers ultimate authorities. That it is grossly immoral to think of ethicists having sole right to apply ethics is evident when we realise that an ethicist may be very wise in thinking about morality, an ethicist may contribute a lot with regard to resolve a moral impasse but applying ethics demands to 'think outside myself', concentrating on the collective venture and identi-

fying collective decision with my own. It may well be that the collective decision may be like my own decision. It may be with little difference or with great change. One thing is for certain, it will bear a great *value* in a *moral world.* This also speaks of the fact that collective decisions may be changing, growing, regressing, progressing and so on. One who does not realise that there can be collective decisions (in which ethicists are active corroborators) fails to understand that collective may be 'a party, or a nation, or a class, may have interest which are quite distinct from the interests eigher of a given individual or even of all the individuals who go to compose it at a given time.'[11] It may be that in certain cases, an individual may be so morally charged, may be so morally correct in deciding what ought to be done, that he does conflict with the collective morality, but that person also has to corroborate his views with others so that the collective morality changes the older garb. Application of ethics is a constant *social enterprise,* helping us to take moral decisions, which are worth following in this time frame at least and in the world we live in. It may not be without individuals, however it has to transcend individual and professional knowledge barriers. Most important is that in doing so, our basis is moral experience and moral interaction.

We must understand that ethics without applied ethics is *Phoenix ethics,* merely formal, and contemplative. It does not come closer to our practical life. It does not help us. It is useless. Practical ethics is on the other hand an active enterprise, coming closer to life, to face real-life situations. It does not make us moral but does help us to dispel moral hunches and to make us active participants of a moral world. It corrects us and reforms our moral views. It is thus highly useful. If we include t his, ethics is *useful ethics.* Analysts should understand this. They should understand that without conceiving the homosapiens as social beings and without serious concern about their quality of life, morality is barren. We therefore need practical ethics to improve the moral life of the homosapiens. Hence, discarding it is dangerous because we are encouraging a moral philosophy which does no good to all of us, rather encourages a band of ethicists in satisfying their mental gymnastics.

However, we must understand that applying ethics makes no sense if we do not look into the starting point of this venture. We need to apply ethics only when we face certain practical problems which raise moral questions as well. We may call them *value-laden problems.*

The analysts may not be completely satisfied because they may be still thinking that it is too odd to think that there are 'value-laden' problems. Let me give one example from a real-life situation. Readers may recollect at this

point that I had earlier said about a 'stark truth', i.e. 'without moral experience, we cannot engage in any task of ethics.' I had recently arranged a discussion on 'Should we harness rivers for power generation?' The obvious reason was that according to me this is not simply a practical problem faced by the electrical engineers, rather it is a problem which attracts many of us because it raises a *moral question* of the nature, 'whether or not it is *morally desirable* to take such a practical decision in our society?' Hence the word 'should' present in the above problem does not reflect whether or not it is practically valuable for us to get involved in such an action, rather, whether or not such an action has a moral value. The question carries this distinct moral overtone because some of us (politicians, policy makers, engineers) cannot *decide* to *do* something which affects others adversly. We may doubt that such an action may be detrimental to the quality of human life (and let us remember that the quality of human life is not disassociated from the sustenance of the ecological community of which we are members). We do really think that it is not ethically permissible to allow some people in the society to take decisions in favour of harnessing rivers for generating power. When I talked to many people in this regard, I was astonished to find that electrical engineers, social activists, politicians, economists, botanists, ecologists, and administrators, all agreed that a practical decision may have a moral face when we think carefully about this matter. All of them felt that this moral crisis is not for any one of them, rather for all, for the collective as a whole. They felt that this cannot be neglected because we must frame practical rules with a moral face so as to prevent horrifying consequences that follow from taking a decision to harness rivers for power generation. The panel was unanimous that power production by harnessing rivers *should not* be allowed. Hence, such an *act,* should be discarded as *immoral* for it is against the basic principle of 'sustainable ecological development'. These people agreed that this basic principle is the guiding ideal in taking practical decisions with regard to value-laden ecological problems. Noticeably this ideal is not devoid of the ideas of the 'creed of the human beings for development' and 'the need of the poor'. We may further analyze to find that the guiding principle pronounced above reflects the basic feature of a teleological ethical theory, viz. 'Utility'. However, the panel did not only justify why such an act is immoral and undesirable, it helped in framing some decision-taking rules having moral face so that the moral problem can be efficiently resolved. The panelists were keen that the government agencies should know about it and also common people should join the chorus of protest.

Obviously some problems which *we* encounter in real life, are value-laden or are those problems that raise moral questions. We may thus face moral impasse or moral crisis, which has to be resolved. The range of ethics considers such problems seriously. To do so, applying ethics is what is crucial and this is made possible only if we corroborate our moral point of views to frame practical decision-taking rules. If all this is done, professional decisions are ethically charged and are humane. A group, a party, a community and a nation can take recourse to this activity. Now that I am actively engaged in such an activity, I assure you, 'it works'. The only thing is to have a democratic set-up, enough education and proper political will to make it a social creed.

Hence, I conclude to say that the *proper task* of ethics is to engage in normative and meta-ethical enquiries and to apply ethics to resolve value-laden problems. Practical ethics is thus *within* ethics and is really useful for us only if we choose the right *methodology*. In fact many confusions in applying ethics are centered around its methodology. What I prefer is, 'inter-subjective corroboration', of which I had said something in this paper. Let us thus conclude that normative ethics and applied ethics are both included within the broad field of ethics and to avoid them is to think of ethics as 'exclusive meta-ethics', which is nothing but thinking of an unethical ethics.

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Solidarity or Objectivity? Richard Rorty and the Predicament of Relativism

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DIVIDED FOCUS

The theme addressed in this paper requires some clarification—not so much in terms of its content as its focus, which is divided. Without clarifying the nature of this divided focus, it is quite possible in the end of find it misleading. The main focus is certainly on Rorty's notion of truth and objectivity, and this may be said to have laid down the foundations of this paper. But in addition, it has a subsidiary focus that follows from the main focus in the sense that the issues discussed under the former are the general consequences that follow from the latter.

It will not be wrong to say that the ultimate purpose of the present paper is to take a critical stand on relativism, to show up its inconsistencies and its present predicament. In order to do this, I have discussed the present issue at two levels, and these form the main and subsidiary foci of the paper. At the first level, I have taken Rorty's thesis on objectivity and solidarity as basic to the theoretical structure of relativism. Rorty's arguments against truth and objectivity, and his ethnocentric perspective in philosophy represent relativism at its best. Thus Rorty's ideas may be described as forming the conceptual and methodological core of relativism. As such, therefore, the central concern of this paper has been to discuss Rorty with a view to arrive at certain general conclusions about relativism. At the second level I have discussed the incommensurability principle, which though it does not fit into the main heading of this paper, should nevertheless be seen as an intrinsic part of the general study of relativism. The incommensurability principle arises as a natural corollary to relativism: this is particularly true in view of Rorty's ethnocentricism. The primary focus and the secondary focus are thus thematically related. The relativist position on truth and objectivity finds its culmination in the incommensurability principle, and there cannot be any satisfactory account of the former without the latter.

The two notions, truth and objectivity, occupy a central place in this inquiry. I have argued throughout this paper that the notion of truth can neither be given up not be dissolved into social consensus. To accept this will be to accept the idea that truth has an independent status, for this alone can ensure the sense of objectivity. The notion of truth will be possible only when we grant that there is a correspondence relation existing between language and world. What the nature of this correspondence will be, will of course, be a crucial question to decide. I have tried to answer this question, and in this respect have assumed the internal realism of Hilary Putnam. I have argued that failure to recognize this (very) intrinsic nature of truth will lead to an incoherent and inconsistent world view, and that relativism exhibits such a world view.

In the first section of the paper, I have examined the sense in which Rorty can be called a relativist. This discussion is preliminary to the discussion in the second section, which examines the two fundamental notions of objectivity and solidarity. Here I attempt to show the inconsistency in Rorty's position and that it leads to a predicament which is characteristic of relativism in general. In the third section I have discussed the incommensurability principle as a necessary corollary to relativism. As in the present section, I have shown the inconsistency involved in the incommensurability principle. In the fourth section I have tried to offer my constructive proposals concerning truth and objectivity, and this has largely been done following the proposals of Putnam and Thomas McCarthy.

I. RELATIVISM AND THE ETHNOCENTRIC STANDPOINT OF RORTY

Rorty does not subscribe to relativism as traditionally understood. Instead, he talks of pragmatism. But while it is true that his ideas do not strictly fall under the category of traditional relativism, it will be wrong to deny the connection that his pragmatism has with relativism. In fact, Rorty espouses a sophisticated version of relativism and in that sense he is one of the foremost representatives of modern relativism, particularly in the context of the debate between realism and relativism. An important point that needs to be noted in the context of Rorty is that the issue of relativism comes as a consequence of his pragmatism. His ethnocentric account of knowledge, reason, truth, and objectivity makes a strong case for relativism. It is the ethnocentric perspective that permeates his philosophy and becomes the ultimate ground of his relativism. I shall now briefly state the reasons for which

Rorty be called a relativist: this will also serve the purpose of stating the theoretical standpoint of relativism.

Rorty as a Relativist

To consider Rorty as a relativist, one must first mention the philosophical project he pursues since it forms the background to his relativism. As is well known, Rorty is against the foundationalistic nature of traditional philosophical inquiry, which claims to make universally valid knowledge claims. This forms the negative part of his project, and consists in showing that:

> First, there are no 'perennial and eternal problems',[1]
>
> Second, there cannot be any valid knowledge attained 'by erecting a permanent neutral framework for inquiry and thus for all culture;'[2] and
>
> Third, a neutral framework engages in an impossible task because it attempts to provide 'non-historical conditions of any possible historical development'.[3]

In Rorty's assessment, the main fallacy of traditional philosophy lies in its conception of knowledge. It is a conception that regards knowledge necessarily as 'knowledge of permanence' and thereby assumes a total dichotomy between the knower and the known. In this situation, how the object is known is explained through the intervention of the mind. The mind reflects the external world, and it is through these reflections that it forms the various representations of the external world. These representations constitute knowledge. In this traditional world-view, the mind is placed at the centre, the foundation of philosophical inquiry. Later, the conception of the mind as representing the external world is replaced by that of language as performing this task. As a result, instead of the mind, it is language that becomes the foundation of philosophical inquiry.

Rorty criticizes this foundationalist view. His fundamental plea is that instead of looking for immutable foundations, we should look into social practices—the concrete forms of life, in which basic notions such as 'reason', 'truth', 'objectivity', 'knowledge', etc. first originate. According to his call, one brings these notions back to earth and sees how they are embodied in our social practice. This asks for a drastic change in our perception of philosophy.[4] Knowledge and justification are viewed as social phenomena. Knowledge consists in understanding the social practices through which we justify beliefs. Accordingly, an inquiry into the nature of knowledge becomes a matter of studying certain modes of action and interaction: Rorty characterizes

this as conversation. Knowledge is thus regarded as a matter of conversation, and so also is philosophy. Science, humanities, morality etc. are not exceptions to this. They should be defined as modes of conversations rather than as having fixed structures based on a foundation.

Rorty considers this conversational point of view to be a moral one. Edification of philosophy implies the possibility of conversation and as a result, philosophy does not degenerate into inquiry. Thus the social community, understandably enough, plays a crucial role in Rorty's philosophy: it works like a stage that makes all these activities possible. In view of this, it is no wonder that for Rorty, the community becomes the ultimate source of moral and epistemic authority. This indeed expresses an ethnocentric worldview based on two of Rorty's fundamental convictions: first, we cannot get a God's eye-view of things and, second, we cannot go outside of our culture or paradigm. In this world view, relativism comes as a logical consequence—a natural corollary to ethnocentricism.

As the background of Rorty's ethnocentricism, we may now try to find out the specific grounds on which he may be called a relativist. The first that comes in the list is the notion of justification—justification pertaining to knowledge and truth.[5] According to Rorty, 'Knowledge is what we are justified in believing.'[6] This remark makes it obvious that like the notion of knowledge the notion of truth for Rorty is intrinsically connected to justification. There is nothing called attaining truth since truth does not have any independent status. Rorty thus equates truth with warranted assertability. Later, we find that he further radicalizes his position and he considers knowledge and truth as commendatory terms. They are defined as compliments which people pay to their favourite beliefs, which do not require further justification.[7] As Rorty comments:

> Knowledge is like truth, simply compliment paid to belief which we think so well justified that for the moment further justification is not needed.[8]

In this interpretation, knowledge and truth do not enjoy the same status of objectivity as they used to in traditional philosophy. They are based on the idea of consensus—the agreement among people. Putnam, while speaking about Rorty's relativism, points out that in Rorty's argument 'truth' and 'falsity' are reduced to mere marks indicating the people with whom we agree and those with whom we disagree. Rorty claims that the same consideration holds in contexts such as, when we make normative evaluations or judge what constitutes rationality. Normative evaluations are said to be trans-community evaluations but, in essence, they are disguised expressions of communal preferences. As a result, they are not universally binding. This is so because norms are not ahistorical—they are, on the other hand, historically defined. Normative authority is thus not transcultural but intracultural. Now, when we come to rationality, we find that the same communal considerations come into play in determining what constitutes rationality. The question about rationality and irrationality cannot be decided in absolute terms; the reason being that they are invariably relative to culture. As Rorty says:

> ... there is nothing to be said about either truth or rationality apart from descriptions of the familiar procedures of justification which a given society—ours—uses in one or another area of inquiry.[9]

Putnam responds[10] to the ideas expressed in the above passage. As he points out: Is not Rorty's use of the word 'ours' an endorsement of his radical relativism? As mentioned earlier, Rorty is not a self-confessed relativist nor is he a relativist like Protagoras. The claim that Rorty is a relativist comes from his ethnocentricism. It may not be untrue if we say that the other side of his ethnocentricism is relativism. There is a serious flaw in Rorty's ethnocentricism turning into relativism. Its failure comes from its denial of a notion of truth which, according to him, is the unattainable will-o'-the-wisp. This leads to the denial which is the denial of objectivity. The alternatives that Rorty suggested, namely, conversation and solidarity in place of truth and objectivity are as defective as the view that he rejected. As I shall argue, Rorty's view finally leads to a predicament which expresses the predicament of relativism in general. To do this I shall now examine the central idea of Rorty—objectivity and solidarity.

II. SOLIDARITY OR OBJECTIVITY? A WRONG QUESTION

As discussed earlier, for Rorty, intellectual inquiry is not meant to be a search for truth. It is a conversation in which people participate and they participate according to the rules of conversation. It is through conversation that agreement is reached. Arriving at an agreement is thus the final goal of an inquiry. It is the expression of truth. But, what is this agreement? What is it about? Rorty's positive answer is that it is an agreement on values—the values that we share among ourselves. It is the moral conception of the individual that becomes the guiding force behind this agreement. This is what Rorty calls 'solidarity'. As he says: 'In the end, the pragmatist tells us what matters is our loyalty to other human beings clinging together in the dark, not

our hope of getting things right.'[11] The two revealing ideas expressed here are: first, his pessimism regarding the possibility of enlightenment, and second the primacy of social loyalty over cognitive/rational values. This is the basis of his idea of solidarity as posed against objectivity. Reaching agreement in conversation is thus primarily the result of social loyalty—our desire for 'clinging together'. On the contrary, to see this as the expression of any objective truth will imply the refusal to see the socio-cultural basis of cognitive activities. But can objectivity be denied in favour of social loyalty? Can science proceed in this way? These are the questions which Rorty needs to answer in order to establish his thesis on solidarity.

Rorty wishes to reduce objectivity to solidarity and claims that this is what the pragmatists desire to do. A minor clarification may be sought here. A question may be raised: Is the proposed reduction a case of reduction at all? This question is raised because, for Rorty, there is no such thing as objectivity and thus his claim is that the rational or realist commitment to objectivity is a misplaced commitment. In view of this, his task is to supplant the commitment to objectivity by solidarity. What we perceive as objectivity is essentially a case of solidarity. Certainly, this process does not involve any reduction and, therefore, it is wrong if it is described in this way. One may, of course, see this as a terminological problem and may thus consider the issue of reductionism not as seriously as it has been projected. It is true that reductionism is not an issue here. But it indicates certain deeper problems concerning Rorty's treatment of objectivity and solidarity. He has failed to give a satisfactory account of these two notions and, as a result, he had to take an ambivalent stand on the reduction of objectivity to solidarity. The talk of reductionism thus indicates a deeper malady. It shows Rorty's lack of clarity over these two concepts. Let us go into Rorty's analysis of these concepts and see what is wrong with it.

The attempt to find out Rorty's analysis of objectivity and solidarity may be quite disappointing. The reason is that contrary to our expectation, we find that these two terms are not explicitly defined by Rorty. In fact, they are not even characterized independently. They are seen together and are, therefore, characterized in terms of one another.

Rorty writes that a person 'seeking' solidarity will never try to justify the practices of his community in relation to something lying outside of that community. For him, the former does not bear any relationship with the latter. This standpoint reveals what may be called the internalist attitude where everything is seen and justified internally, that is, within the purview

of the community. This may be called the ethnocentric standpoint. However, when we come to objectivity we find a drastic change in the person's attitude while seeking objectivity. To attain objectivity, he 'distances' himself from his community and its persons. He does not consider himself to be a member of a group. This results in an impersonal attitude since in the absence of social bondage, the person seeking objectivity attaches himself to something which is non-social and non-human. Justification is sought externally and it thus reveals the absolutist standpoint. As we can see, in the ethnocentric standpoint there is nothing called objectivity—objectivity is really solidarity. To 'reduce' the former to the latter the only consideration that plays, as Rorty points out, '... is what is good for us to believe.'[12] This is a pragmatic justification expressing ethnocentricism at the background.

It evidently follows from Rorty's account that there is a distinction between objectivity and solidarity. Before speaking about this distinction, we must note that this distinction has a far-reaching methodological implication. Methodologically, this distinction corresponds to the distinction made between explanation and understanding[13] in the philosophy of social sciences. Rorty's discussion of objectivity and solidarity must be placed within the wider context of the methodological debate between explanation and understanding. This is important for the purpose of evaluating the validity of Rorty's claim—a claim which clearly assumes a methodological perspective.

It is true that Rorty has made a distinction between objectivity and solidarity. But is the distinction between the two a bridgeable one? This is a question raised by Alexander Rosenberg,[14] one of the critics of Rorty. Rorty's answer to this is of course affirmative, since, as we know, he allows the possibility of objectivity to be reduced to solidarity. But there is an anomaly here, which arises because if we grant the reduction of objectivity to solidarity to be a fact then the question of making any choice between objectivity and solidarity or between explanation and understanding does not arise. We have seen Rorty simultaneously holding both these possibilities. To show that reductionism is a fact—a real possibility—Rorty needs to provide more arguments for his defense. This is particularly true of those who hold that the gulf between explanation and understanding is unbridgeable. Their main argument is that the two methods associated with the respective concepts (explanation and understanding) are incompatible. On this issue, we don't find many arguments from Rorty. In fact, contrary to his reductionistic stand, there are places where Rorty seems to be suggesting that the gulf between

the two is unbridgeable. However, at the same time, Rorty puts forward his claim saying that the pragmatist should choose solidarity. This clearly shows the ambivalence in Rorty's stand. It becomes particularly apparent when we take the distinction between objectivity and solidarity in the context of the controversy between the two methods namely, explanation vs. understanding. This ambivalent attitude of Rorty affects his treatment of solidarity, which is one of the constitutive themes of his methodology.

We thus come to solidarity. Rorty expresses his desire that pragmatists should choose solidarity. But what does this solidarity mean in actual terms? The following passage from Rorty will help us to get an idea.

> Insofar as a person is seeking solidarity, he or she does not ask about the relation between the practices of a chosen community and something outside that community. Insofar as he seeks objectivity, he distances himself from the actual persons around him not by thinking of himself as a member of some other real or imaginary group, but rather by attaching himself to something which can be described without reference to any particular human beings.
>
> Those who wish to reduce objectivity to solidarity—call them pragmatists—do not require either a metaphysic or an epistemology They view truth as what is good for us to believe.[15]

This passage makes it obvious that seeking solidarity implies that you give primacy to community. Community comes first and it becomes the basis for moral and epistemological justification. Solidarity, so conceived, is essentially an ethnocentric notion.

Given this notion of solidarity, one will like to know how to achieve this solidarity and how to extend it to others. On this, Rorty's suggestion is that the first step towards achieving solidarity will be to give up the positivist philosophy of science, particularly, the universal application of its scientific method. It is necessary to do this—otherwise, social sciences will never be interpretive—interpreting people around us. By changing its method and goal, social sciences can thus generate the sense of community feeling among people. The consequence of all these is that social sciences will no longer be projected as part of natural sciences. Instead they will be seen as 'continuous with literature'. A passage from Rorty's writing will help us to see the point that he is making. As Rorty says:

> If we get rid of the traditional notions of 'objectivity' and 'scientific method' we shall be able to see the social sciences as continuous with literature—as interpreting other people to us, and thus enlarging and deepening our sense of community. We shall see the anthropologists and historians as having made it possible for us—as educated, leisured, policy makers of the West—to see exotic speciments (sic) of humanity as also 'one of us', the sociologists as having done the same for the poor (and various sorts of nearby outsiders), the psychologists having done the same for the eccentric and the insane.[16]

The above passage offers an alternative conception of social science—a conception that is certainly very humane. In this sense, the ideas expressed in this passage are imaginative and bold. All that is said by Rorty is true and no one can fail to appreciate the sensitivity expressed through this passage. However, like the other side of the coin, there is also the other side of the passage which indeed, is highly revealing: this reveals Rorty's ambivalence—a conflict in his system of ideas. Let me explain this.

A careful analysis of the passage, as Rosenberg puts it, reveals that Rorty is not against objectivity as such, nor is he against scientific method. In this formulation, objectivity is not in conflict with solidarity because these two are not incompatible with each other. If objectivity is not a problem then what is it that bothers Rorty? What is his reason for rejecting objectivity and scientific method? He is rejecting only the traditional picture associated with it. He is really against the positivisitc picture of these notions. This, indeed, is a position which is contrary to his earlier position on objectivity where no room is left for the latter.

Rorty's position that there is no conflict between objectivity and solidarity, of course, presupposes a condition. In fact, without this the whole position will be untenable. It involves taking a new view on knowledge. As against the prevalent view that knowledge is representation, Rorty argues that knowledge is essentially a matter of interpretation. To assume this perspective implies considering all inquiry to be a matter of interpretation. In such a picture, the various disciplines and their associated methods are seen as having a purpose to fulfil, namely to promote solidarity. The consequence of this is that objectivity is no longer seen as an independent notion having autonomy of its own. It, on the other hand, dissolves into or is reduced to solidarity. This is how one can see the connection between knowledge and solidarity.

As we can see, objectivity can be reduced to solidarity only when we assume that knowledge is interpretation. In Rorty's claim the former follows from the latter. From our point of view it is on this epistemological position that the issue concerning objectivity/solidarity stands. This is actually a shift from one position to the other. The reason is that our original problem—whether objectivity can be reduced to solidarity—is now shifted to whether knowledge can be seen as a matter of interpretation or not.

Coming to the thesis that knowledge is a matter of interpretation, the element that is crucial to it is the notion of meaning. The reason is that interpretation and meaning are inseparably related. Interpretation involves explication of meaning. In the present context the explication involves meaning that 'constitutes human existence'. In Rorty's perception, the key to the understanding of everything in the world is meaning, because as he puts it, 'everything is constituted by a web of meanings.'[17] To explain this position two notions are to be clarified: first, the meaning of the word 'constitution', and second, the meaning of the phrase 'a web of meaning'. The use of the expression 'constitution' does not have any physical connotation. It should be distinguished from its physical sense, such as, when we say that the house is constituted of bricks. But 'constitution' may be understood in some other sense where to say that X constitutes Y implies that we cannot know Y without having sufficient knowledge about X. This shows that there is a network of relationships among things. Things are related to each other in a particular manner. Hence, to understand a particular thing one requires to see it in relation to many other things which together form what may be called a network of relationships due to which we interpret things in a particular manner. As Rorty[18] explains, something would be considered as fossils and not mere rocks only when we 'grasp its relation with other fossils'. Any inquiry is guided by a certain interpretation which, in actual terms, is an interpretation of the meaning relationship that exists among the things or objects under consideration.[19]

The inseparable relation between meaning and interpretation raises a basic problem regarding the notion of meaning itself. We must accept, as Rosenberg[20] argues, that there are two notions of meaning. In one case, meaning is identified with intention, i.e., expressing intentional content. It may thus be called intentional meaning. At this level, meaning is close to interpretation. Rorty's talk on meaning is solely concerned with the intentional notion of meaning. However, there is the other notion of meaning which may be characterized as natural meaning. The specific content in which it arises is the

causal context. In the natural and social sciences, the meaning of an expression is often determined by the functional role that it plays in the causal network. To know the meaning is thus to identify the relevant cause–effect relationship. In view of this causal perspective, there may be an exclusive sense in which the meaning of an expression may be used. To give an example from Rosenberg, the term 'meaning' may be used exclusively in a biological sense where the adaptive meaning of a trait may be understood in relation to its evolutionary significance. This is a notion of meaning which does not have any intentional content and thus it is not identified with intentionality. It is, on the other hand, identified with causality or its causal role, which is independent of any interpretation, such as Rorty's example of the paleontologist's interpretation of fossils. The reason behind it is that the paleontologist's interpretation does not ascribe causal roles to fossils. For a thing to be a fossil there must be certain relevant causes which, of course, exist prior to the paleontologist's recognizing it as a fossil. This is the idea of natural meaning.

In view of these two notions of meaning—natural and intentional, one can now see the predicament of Rorty. If everything is taken to be a matter of interpretation, the problem that will arise is regarding the very notion of meaning that Rorty holds. There are three alternatives left for him. First, meanings and causal roles are identical. Second, meanings are not natural. Third, meanings are of two kinds—natural and intentional. None of these alternatives will be acceptable to Rorty. He cannot accept the first since that will lead to the denial of his own position. He cannot accept the second since that will be the denial of the facts of language use. Finally, he cannot accept the third since that will amount to holding a different position. As the picture emerges, Rorty should either stick to his untenable position that knowledge is interpretation or should accept any one of the alternatives which virtually implies denial of his own position. This, indeed, is a predicament.

Let us come back to the fate of objectivity. The discussion on meaning shows that there still is a separate place for objectivity. Objectivity is not wholly a matter of interpretation alone so that the distinction between objectivity and solidarity can no longer be tenable. The causal perspective on meaning shows that there is also a nonreductionistic sense of objectivity where objectivity enjoys restricted autonomy. This is a position which inescapably follows from the fact that there is an objective domain of knowledge and truth.

Continuing with the idea of objectivity, my next argument will be to show that relativism contains within itself a transcendent nature. The transcendent nature of relativism refers to an ideality which is a constructed notion having an objective validity of its own. Rorty's notion of community which constitutes the core of relativist doctrine ironically exemplified this nature. Let me explain this.

As pointed out earlier, the notion of community is central to the relativist worldview since it is the notion on which the supreme authority lies. But what does it refer to? What is its boundary? I mean how large or small is the community?[21] The implications of these questions can be seen by taking specific sense in which the notion of a community is figured. In the context of a cognitive realm such as physical theories, the notion of a community in relation to the physicists. This is a context where the notion of a community has a restricted reference. However, the same is not true in the context of everyday conceptualizations where we find the presence of such commonly shared concepts like 'body', 'mind', 'goodness', 'truth', etc. The notion of a community presumed here must have a vast range. A different situation arises when we come to morals. To decide on a moral issue, what is it on which we should depend—the little community centered around my village? Or the wider community outside?

As we can see, the common issue running through all these contexts is where to draw the temporal and geographical boundaries. The exercise of where to draw the boundary may appear to be a practical task. But in fact, it is not. The problem involved in this task is enormous and to resolve it is in principle impossible. The greatest danger to this view is that communication in any form will be impossible. Hence, to save the situation, we accept certain formats or structures which are the minimum required to carry out communication or conversation in society. This constitutes ideality—a construction that is made by us. The notion of community thus constitutes an ideality which transcends the arbitrariness involved in drawing the different cultural boundaries. The ethnocentric diversities are admitted as the background of an ideal foundation that facilitates communication across the different cultural groups. This is similar to the Habermas-Apel idea of the ideally communicating society. The ideality we are talking about expresses a sense of objectivity which implies that the notion of community has an objective ideal correlate and it thus defies the relativist notion of community. The main problem with the relativist notion of community as found in Rorty's doctrine is that it creates an impasse which leads to a deadlock. They overlook the fact that the community has an objective–ideal correlate which makes conversation keep going. I shall now go to the third section to discuss the incommensurability principle in relation to truth and objectivity.

III. CAN A RELATIVIST TALK ABOUT OTHER CULTURE?

The problem of objectivity in relation to relativism can be most accurately seen in the relativists' thesis on the incommensurability of concepts and theories. The central claim made by the incommensurability thesis is that the term of a theory does not retain the same meaning and reference when it is applied to another theory. The change in terms of meaning and reference occurs because the term concerned when applied to a different theory/paradigm involves a conversion or gestalt switch. There is nothing called sameness in meaning and sameness in reference present across the theories. Every theory has its own norms and standards in the light of which justification of the theory is offered. Going beyond these norms and standards is not possible because they are valid only within the theory to which they belong. The situation projected in the incommensurability thesis thus rules out communication between the paradigms/cultures/theories. There is no single world view but there are many without having any relationships among them. As a result, to put it metaphorically, we become prisoners of our own respective world views. One cannot fail to notice the inevitable connection between the incommensurability thesis and relativism, and it will be no exaggeration to say that the former provides the basis for the latter.

We are not concerned here with the details of the incommensurability thesis. We are, on the other hand, interested in some of the implications that follow from the incommensurability thesis. One of the most crucial problems that arises with the incommensurability thesis is due to its denial of translation and interpretation. The consequence of this denial is fatal to the incommensurability thesis itself and relativism in general. At the cultural level, the impossibility of interpretation leads to the denial of the existence of others as thinkers—the reflective persons. At the level of scientific knowledge, the impossibility of translation/interpretation makes scientific discourse impossible. I shall now explain both these aspects, and in my explanation I shall mostly rely on Putnam's account[22] since it relates the incommensurability thesis to the basic structure of relativism.[23]

Self and Others

The acceptance of the incommensurability principle by the cultural relativists raises two issues. The first is about how to explain our relationship with

others, and the second is about how to explain our relationship with ourselves.

As claimed by the relativists, due to the incommensurability of paradigms/cultures we cannot ascribe meaning to the statements of others coming from a culture which is different from our own. True, though this has been stated as a fact, it indicates the inconsistent nature of the incommensurability principle. Let me explain this in the light of Putnam's argument. As Putnam points out,[24] according to the incommensurability principle, to say that something is true implies that it is true in accordance with the norms of my culture. The same holds true of others whereby following the principle of incommensurability I can similarly maintain that something is true for you because it is true in accordance with the norms of your culture. Apparently, this position does not appear to be problematic. However, this is not so in view of the implication that follows from the incommensurability principle. The question to be raised is: 'On what ground can I legitimately use of expression "your culture"?' This question does not have any answer. The reason is that the expression 'your culture' does not have any independent meaning. Whatever meaning it has is only in relation to my culture, that is, as seen from my culture. This follows from the incommensurability principle since if my utterances are governed by the norms of my culture then on the same ground my utterances about other cultures must be governed by the norms of my culture. The whole notion of the other thus becomes my construction. As Putnam very aptly points out, 'Other cultures become, so to speak, logical constructions out of the procedures and practices of one's own culture.' Thus, when the relativists claim that a person's statement is true by the norms of his culture what is meant here is that a statement made by a person is true by the norms of the relativist's culture. The others don't exist as speakers or thinkers. The personhood of others is denied.

After showing that the other cultures are constructions made by the norms of my culture, Putnam's next argument is directed to show that the position held by the relativists involves inconsistency which ultimately becomes self-refuting. Putnam's worry is with the phrase 'the norms of my own culture' as used by the relativists. Thus, to say that a statement S is true is to mean that it is true in relation to my culture. Now to hold this implies that for myself the statement 'S is true' has a definite and absolute meaning. The consequence of this is fatal to relativism since to utter this the relativist has no option but to accept the absolute notion of truth. A relativist if he is consistent to his standpoint cannot accept this.

The dilemma before the relativists is that, on the one hand, they cannot accept anything called absolute standard and, on the other hand, due to the absence of an absolute standard they cannot distinguish the situations where one is right from the situation where one is thinking that he is right. Putnam is using the same distinction that Wittgenstein has used in his private language argument, where he says that following a rule is not the same as thinking that one is following a rule. Further, like Wittgenstein, Putnam also pointed out that this distinction will have no significance unless it is properly qualified. Thus, this distinction requires one to accept what Putnam calls an 'intelligible notion of objective fit'.[25] This is the same as Wittgenstein's notion of criteria. In the light of this distinction, relativism turns out to be a self-refuting doctrine where a relativist can no longer consider himself as a speaker communicating with a speaker belonging to other cultures.

Impossibility of Scientific Discourse

The impossibility of translation in the context of scientific theory leads to inconsistency which results in the impossibility of scientific discourse. The inconsistency is found from the scientists' own practice. In this respect, the example that Putnam gives is very revealing. As he says, 'To tell us that Galileo had incommensurable notions and then go on to describe them at length is totally incoherent.'[26] This is where the inconsistency lies, because to say that theories differ we must be able to compare them first. But comparison is not possible because translation between two theories is not possible. Comparison is possible only if there is a possibility of translation. To put it in Putnam's language, '... We could not say that comparisons differ and how they differ if we couldn't translate.'[27] This is an inconsistency arising out of the relativist's acceptance of the incommensurability principle. It points out a deeper crisis in relativism since in the absence of translation and comparison the very possibility of scientific discourse becomes questionable. It is a distinction which says that a particular concept may be the same across the theories, but the conceptions attached to the concept by the various theories may differ. They differ in terms of their beliefs regarding the nature of the concept and the way it functions. In view of this, one can talk about the sameness of the concept (and not of conceptions) as figured in different theories. Putnam argues that the relativists overlook this distinction and thus 'confuse or conflate' concept with conception.[28] This, indeed, is a way out from the dead-end created by the incommensurability principle.

In Putnam's opinion, the incommensurability principle is born out of scepticism.[29] The relativist's major worry that a successful communication will never be achieved is an expression of scepticism. As they argue, we cannot state everything that is required to be stated. There will always be a residue of unstated fact. The same is true of interpretation. We can never be successful in interpretation due to the reason that all the conditions required for successful interpretation may not be available. Incommensurability is therefore an uncontested fact for the relativists.

The same sceptical attitude is found in the presuppositions with which relativism starts. A careful look will reveal that relativism shares the same presupposition with realism. To use Putnam's phrase, both of them have the same craving, the craving for objectivity. As Putnam argues,[30] like the realists, the relativists also hold that for knowledge to be proper it must be objective, implying thereby the absolute nature of knowledge. The realist's approach to it is that for absolute knowledge to be possible it is necessary that theories must correspond to mind-independent reality. This further implies that for correspondence to hold, reference should be determinate. The relativists, however, find that the notion of determinate reference is not a viable notion. Reference is always indeterminate. It is parochial. As a result, there is nothing like theories corresponding with reality. In fact, the notion of reality goes through a radical change. It is no longer conceived as something unconceptualized existing independently of mind. In such a situation of a fragmented world, comparison and interpretation between theories is not possible. This becomes the basis for the relativists to advocate the incommensurability principle. The same craving for objectivity is found in the relativist's search for the universal standard when they talk about translation and interpretation of theories. Since they don't find any such standard, they deny translation of theories.[31]

The situation described above creates an impasse. It is an impasse because no rational discourse is possible. There is no way to communicate with others. The others become my own construction. This eventually leads to a kind of solipsism. It is not the traditional solipsism—the solipsism of 'I', but it is the solipsism of 'we'.[32] A way out must be possible because to accept the alternative—i.e., the incommensurability principle—will mean to deny the facts of rational practices. That we translate a foreign language or interpret a theory or understand other cultures is a well-accepted fact—a fact of rational practice. In view of this, the incommensurability principle and the picture that it portrays cannot be a reality. Accepting this as a basic fact, the best way to get out of this relativistic predicament will be to see what constitutes the prephilosophical notions of truth and objectivity and this will reveal in what sense the validity of these notions can still be retained without falling into the absolutist perspective of classical realism.

IV. GOING BACK TO THE PRE-PHILOSOPHICAL NOTION OF TRUTH: PUTNAM'S WAY OUT

My attempt in this section will be to bring out the prephilosophical notion of truth. A discussion on truth will not be possible without a discussion on reference. In fact, our conception of truth to a large extent depends on what conception of reference we hold. These together will give rise to a notion of objectivity. As is well known, this is a point made by Putnam while formulating his internal realism which for him, is the realism proper. In this respect, his appeal to the pre-philosophical notion of truth as something crucial to realism is highly significant because it provides a rigorous philosophical defense for our conviction that 'the way the real appears is the way it is.'[33] In my presentation, I shall concentrate only on this particular aspect of internal realism.

In the pre-philosophical understanding of truth, 'truth' is always understood as a matter of correspondence between word and object. What we say must correspond to reality. Thus, to say that 'grass is green', grass must really be green. This simple understanding or conviction points out that realism will not be possible without the correspondence theory of truth. But then the crucial question is, what should be the nature of this correspondence? What sort of correspondence do we require for upholding realism? The nature of correspondence assumed here is not the absolute correspondence of metaphysical realism. The question about the nature of correspondence cannot be answered without spelling out what constitutes the nature of truth. This is particularly true in the context where 'truth' is no longer defined in terms of absolute correspondence or in terms of mere justification. A kind of middle path is assumed here to accommodate the best of both worlds. Looking at this, there are two aspects involved here. First, the nature of truth, and second, the kind of correspondence relation it asserts.

Putnam argues that truth is a regulative ideal.[34] As he argues, though truth is a matter of justification, it needs to be properly qualified; otherwise the notion of truth cannot be distinguished from majority opinion or from mere convention. To retain the pre-historical notion of truth as a regulative ideal,

we must see truth as an idealization of justification. By doing this, we can avoid defining truth purely in terms of justifiability. The implication of truth as idealization of justification is that it becomes independent of any justification provided either individually or collectively. It attains a kind of objectivity through this process of idealization. In this connection, an example from Putnam[35] will help to clarify the point that I am making. Imagine a situation where we need to decide the number of objects existing. This exercise will involve two stages of inquiry. The first stage will involve clarification of concepts. That is, we cannot answer the above question without our prior decision on how to use concepts, such as, objects, existence etc. Conceptual clarification is the starting presupposition of the inquiry. Without this clarification it is not possible to go any further. The first phase thus begins by characterizing the conceptual domain within which the inquiry is to be conceived. It thus accepts conceptual relativity at the beginning. However, it does not end with conceptual relativity. This is where the second phase begins. After we decide on how to use the basic concepts of our inquiry, we then address the actual problem of the inquiry, namely to find out the number of objects actually existing. This exercise is possible due to the prior conceptual clarification already made. A conceptual scheme is posited within which this question is addressed. Without such a scheme or a clarification, the question cannot be posed, let alone answered. However, this is not the end of the story. An additional element is involved in this process. To recognize this element is essential, otherwise we will be forced to accept conceptual relativism. This new element is involved in making a distinction between the conceptual scheme and the question (namely, how many objects exist?) asked within it. The conceptual scheme states our decision of how to use the basic concepts of our inquiry. In this sense, it lays down the convention of use.[36] The latter assumes its significance at the background of this convention. But it will be wrong if you now say, as Putnam pointed out, that the answer to this question is also a matter of convention. Given the convention of use as laid down by the conceptual scheme, the question raised becomes a factual question. Accordingly, the answer to the question is factual. The question is factual because it inquires about certain facts and therefore, the answer to it can be given only by citing facts, and not by saying how facts are to be viewed. The whole exercise becomes ultimately empirical. The starting point of it is conventional but it ends by showing that there must be a correspondence between a statement and a fact. The verdict of truth lies in correspondence. This is how relativism is avoided and realism is

retained even after taking relativism as a starting premise of the inquiry. The notion of truth in this sense is an idealized justification because it exhibits the characteristics of objectivity.

The objective component of truth can be best seen in the context of reference. We know from our earlier observation that truth depends on reference. This is one of the major arguments of Putnam.[37] His causal theory of reference ensures a correspondence relation between language and reality. This relation of correspondence is established through the causal chain which connects our use of the words to the initial dubbing ceremony. Truth conceived through the causal theory of reference acquires a status which cannot be reduced to mere conventions. The reason is that the entire notion depends on the way in which the words of our language are given referential import. To quote Putnam, a person's description of a room will be taken as true only when we find him using the same conceptual vocabulary as our's, such as, our concepts of table and chair. This is how the truth of a description is connected with its referential import which speaks of a correspondence between language and the world. In fact, without this correspondence the person's description will not make much sense to us. Here what is crucial is the phrase making sense to us. It points out that reference is not an eternal relation; it is, on the other hand, essentially interest-relative. The pre-philosophical notion of truth thus supports the objectivity of truth because without it, the notion of truth will not be intelligeable to us. The notion of objectivity is understood in terms of intelligibility which is based on two principle ideas. First, truth is a matter of correspondence relation and, second, it is a relation which is mediated through the relative frame of reference.

V. THE PRACTICE OF TRUTH TELLING: A SUGGESTION FROM McCARTHY

Another significant proposal on truth came from Thomas McCarthy[38] while he sought to defend the objectivity of truth as against Rorty's ethnocentric interpretation of it. His proposal is that the objectivity of truth cannot be defined since it is something which is evidently found in our practice of truth-telling. To show this, one must concede that the account of truth cannot be confined only to the situations where we make concrete truth claims. These claims are conditioned by various social factors. However, inspite of their conditional nature, these truth claims bear certain implications which are not specific to any situation. In this sense, they are transcendental in nature.

Truth is thus a double-edged notion where, at one level, truth is situational and, at another, it is transcendental. How are these two characteristics represented in our practice of truth-telling? It will be revealed in the way we express our truth claims through language. We often say, for example, 'we believe *P* to be true and we all agree to this; however, at the same time we accept that *P* may prove to be false in future.' There are two important things implied here. First, truth is socially conditioned. It is based on agreement and is specific to situation. Second, truth claims are also situation-transcending in the sense that 'truth', as McCarthy puts it, functions as an 'idea of reason'. It is with respect to this notion that we criticize specific truth claims. In fact our appeal to the standard in the context of resolving rival truth claims justifies this view. It is true that truth is never independent of social justification, but to say this is not to make a claim that it is reducible to any particular act of justification. The failure to see this will imply ruling out the possibility of a particular truth claim being false. This feature of truth reveals its unique nature in the sense that it is both conditional and non-conditional. It is context-dependent as well as context-transcendent. The latter expresses the unconditionality—which means that a particular truth claim is always subject to criticism and rejection. This is how the very practice of truth-telling retains its objectivity.

This standpoint of truth, as McCarthy points out, is ultimately connected with a notion of the subject—a human agent. An individual's social behaviour is not just a matter of conforming to a certain consensus model. This is the fallacy of the action theory proposed in sociology where an individual is conceived as an unreflective agent 'committed to prescribed courses of action.' There are two significant implications involved in this remark. First, who prescribes these courses of action? Second, why are they binding on individuals? Central to these questions is the idea of a common culture. This idea came into existence due to the results of socialization. It is really the common culture that prescribes a system of norms according to which individuals perform their actions. These norms, however, allow deviations. From this it further follows that these norms are binding on individuals because the authority from which they come is the common culture.

The mistake of the above view, as pointed out by such authors as Garfinkel and McCarthy, is that the picture of the individual projected here is essentially wrong. By making individuals conform to the norms of the common culture, it ignores the active role of the individual. It ignores the individual's understanding of his own social situation. The fact is that we share a common conceptual scheme—a common framework of knowledge that works as the basis of our interpretation of other fellow human beings. We take others as responsible moral agents who behave rationally and have the requisite knowledge to understand their situation and to transform it. This way they become rationally accountable to us—i.e., they can be held responsible for what they do. Since we possess the same conceptual scheme, it follows that whatever we ascribe to others is equally ascribable to us by others. This entire rational exercise is reciprocal. The picture of a rationally accountable subject is different from the picture of a subject passively following a set of rules.

The notion of a rationally accountable subject presupposes, as McCarthy claims, an objective reality which is intersubjectively available and is, therefore, commonly known. Unless this is presupposed we cannot make a person accountable for this action. The notion of truth is part of this rationally accountable subject. Truth claims are contested in the light of a certain objective/ideal notion. We can do this because we presuppose that the particular truth claim, as put forward by a subject, can be evaluated. The viewpoint which he holds and the action which he performs can all be criticized on the supposition that he can be held responsible for the view he holds and the act he does. The idea of a rationally accountable subject, as pointed out earlier, is necessarily associated with the idea of the intersubjective availability of an objectively real world. The question of accountability makes sense only when the latter supposition is granted. Rational accountability, objectivity and truth thus form a close relationship and they are constitutive of social practice. Our approach to truth must see this internal connection between the three, and the best way to do this will be to analyze the practice of truth-telling. McCarthy, as we have seen, has given an analysis of it supporting the mutual relationships between the three.

The paper seeks to show that the ethnocentric/relativistic account of truth and objectivity leads to an incoherent, inconsistent and self-defeating exercise. 'Solidarity or Objectivity?' is a wrong question posed by Rorty. There cannot be any notion of objectivity without the notion of solidarity, and in a similar way there cannot be any notion of solidarity without the notion of objectivity. To consider one without the other will be to pull into an extreme position which, in real terms, is unattainable. Through various arguments, I have tried to show the untenability and, thereby, the unattainability of Rorty's position which, indeed, is a position of relativism *par excellence*.

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    ... When it is said that 'interpretation begins from the postulate that the web of meaning constitutes human existence'[11] this suggests that fossils (for example) might get constituted without a web of meanings. But once the relevant sense of 'constitution' is distinguished from the physical sense (in which houses are constituted out of bricks) to claim that 'X constitutes Y' reduces to the claim that you can't know anything about Y without knowing a lot about X ... . But one could equally well say that fossils wouldn't be fossils, would be merely rocks, if we couldn't grasp their relations to lots of other fossils. Fossils are constituted by a web of relationships to other fossils and to the speech of paleontologists who describe such relationships ... . Anything is, for the purpose of being enquired into, 'constituted' by a web of meanings.

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The Fear of Emancipation is the Limit of Lyotard

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Jean-Francois Lyotard, no doubt, is one of the most original thinkers of the twentieth century. His contributions to postmodernism are widely acclaimed. However when we think of a contemporary philosophical theory we do expect certain necessary ingredients. It is felt that an adequate theory of post-modernism should not only contain a critique of contemporary culture and a theory of knowledge, but must suggest certain positive measures for the emancipation of mankind. It is from this point of view that one finds a serious lacuna in the philosophy of Lyotard.

It is true that most of the proponents of postmodernism often ignore or deliberately avoid the question of emancipation. But a close examination of the texts of Lyotard shows that he was, certainly, aware of the causal factor, which prevented an imaginative development of knowledge. On the one hand he depicts successfully the shift in culture and epistemology after modernism, and on the other hand avoids any question on the possible emancipatory measures. In what follows, an attempt is made to reveal the problem of emancipation in relation to the views propounded by Lyotard.

Lyotard's work, *The Post-modern Condition: A Report on Knowledge* is actually a thesis about 'The present and future status of scientific knowledge' (PC, p.8). His main argument is that 'scientific knowledge does not represent the totality of knowledge' (p.7). He expresses anger and disgust over "the resulting demoralization of researchers and teachers' (PC, p.7). As the sub-title of the book shows it is actually a report on knowledge. He discusses the 'incommensurability between popular narrative pragmatics, which provides immediate legitimation and the language game known to the West' (PC, p.23). The changes occurring in the language games of the modern world are the focal point. A large part of the book is devoted to an analysis of the 'new problem' pertaining to the 'relationship between the scientific institutions and society' (p.25). Accordingly, the modern languages exhibit a kind of

consolidation different from the primitive popular narratives. In modern societies the language games 'consolidate themselves in the form of institutions run by qualified partners (the professional class)' (PC, p.25). In the context of such a situation we are trained to omit the fundamental questions like 'How do you prove the proof?' or 'Who decides the conditions of truth?'

The West has imposed a system of knowledge at the cost of various narratives of different communities. With the first industrial revolution there evolved a new strategy, that is, 'no technology without wealth, but no wealth without technology' (PC, p.45). Lyotard resorts to the Marxian analysis to reveal the newly evolved postmodern condition of knowledge and successfully explains how the knowledge system in general has succumbed to the 'terror' of capitalism. Lyotard actually wanted to deviate from the Marxian tradition but did so in vain. As Aram Veeser in his introduction to *New Historicism* says, the post-modern or new historicist approach 'risks falling prey to the practice it exposes' (NH, p.xi).

Lyotard again tries to reveal the economic aspect of the paradigm shift also. In this regard it is noteworthy that unlike Thomas Kuhn who attributed the changes in the realm of science exclusively to the changes in the paradigms, Lyotard reveals the nature of the socio-economic situation which forces scientists to evolve new models. Why should the model problems and solutions to the community of practitioners change? In answering this question Lyotard knowingly or unknowingly depends on the interpretation based on the doctrine of the mode of production. Lyotard writes: 'A technical apparatus requires an investment: but since it optimizes the efficiency of the task to which it is applied, it also optimizes the surplus value derived from this improved performance.' He alludes to the condition when 'science becomes a force of production, in other words, a moment in the circulation of capital' (PC, p.45). Marx has written extensively about the circulation of capital and the consequences of entering the sphere of circulation. For instance, Marx writes: 'As soon as the token of value or paper money enters the sphere of circulation it is subject to the inherent laws of this sphere' (APE, p.128). Without acknowledging the indebtedness to the Marxian methodology Lyotard derives the conclusion from premises given by Marx in order to explain the all-encompassing nature of the economic mode of production.

For Lyotad, 'incredibility towards metanarratives' is the mark of postmodernity and incredulity results from scientific progress. He argues that the logic of maximum performance envisaged and promoted by the ruling class actually produces 'a certain level of terror' and 'the decision makers attempt

to allocate our lives for the growth of power' (PC, p.xxiv). As to the reason for this incredulity, he says, 'the crisis of scientific knowledge, signs of which have been accumulating since the end of the nineteenth century is not born of a chance proliferation of sciences, itself an effect of progress in technology and the expansion of capitalism' (PC, p.39).

Lyotard writes about a future, the symptoms of which are already evident in the Western culture. He says, 'Data banks are Encyclopaedia of tomorrow. They transcend the capacity of each of their users. They are "nature" for postmodern man' (PC, p.51). So he pictures the monological trend of the present world and the need for paralogical counter-measures. It is the capital which wants a single language and a single network. If Stephen Greenblatt is right, Lyotard finds capital 'at the root of the false interaction' (NH, p.5). In fact, Marx had pointed out the possibility of a capitalist future where the demarcation between nations and cultures would disappear. Marx says: 'National differences and antagonism between peoples are daily more and more vanishing, owing to the development of the bourgeoisie, freedom of commerce, to the world market, to uniformity in the mode of production and in the condition of life corresponding thereto' (WL, p.145). It is the same monological trend which forbids the science and scientific community to evolve imaginative inventions. Then arises the question: What is the real encumbrance before Lyotard to approve the emancipatory force inherent in Marxism? Although the postmodern condition is interpreted as the incredulity towards the metanarrative, Lyotard depends upon such a metanarrative to show the hardships of the scientific community. He states in an indubitable way that the obstacle before the 'imaginative development of knowledge' is the 'socio-economic system and not of the pragmatics of science itself' (PC, p.64).

Further, it is amazing to note that in an article entitled 'A few words to sing', Lyotard even resorts to the Marxist ideological reading of art. Evaluating the shift from the classical or traditional music to the modern jazz or electronic music he says, 'A sound is judged as good when it is in its place in the theoretical discourse of music. When so located, even bad sounds can be listened to' (TPM, p.47). He further explains the transgressive movement of music in relation to the problematic of desire. In the same essay he does not hesitate to state that 'art as a language of passion is necessarily concerned with the "problematic of capitalism" '. He raises the question, 'what is the problematic of capitalism?' and answers himself, 'all signs can be transformed into goods'; that is, 'any object can acquire exchange value and can enter into

the circuit of capital, and its production can engender surplus value (Here we discover the exhaustible market offered to the field of desire)' (TPM, p.47). He discusses how Berio changes the traditional pattern of music by inventing a new code. Accordingly, 'such transgressions have become commonplace now that composition makes use of electronically produced sounds' (TPM, p.52). Lyotard concludes the essay with an admonition that: 'one last word, the isolation of the musical "domain" belongs to the discourse of capitalism' (TPM, p.59).

It is irrefutable that the process of commodification on entering the circuit of capital as explained by Marx in *A Contribution to the Critique of Political Economy* is as such employed by Lyotard to explain the shift in the domain of art. Here the problem is not whether Lyotard depends upon the Marxist critique of capitalism or not, but why he does deviate from the vital issue of salvation envisaged by Marxism. It is clear that Lyotard successfully reveals the break in the realm of postmodern sciences owing to capitalist dictations. At the same time, he writes, 'our incredulity is such that we no longer expect salvation to rise from these inconsistencies, as *did Marx*' (PC, p.xxiv, italics my own). It is noteworthy that the opponents of Marxism often cling to this point in order to attack Marxism and state that it is obsolete.

In the whole report on knowledge, Lyotard tries to explain the newly formed cleavage between the imaginative invention and the scientific knowledge as owned and controlled by the 'richest'. So it is the credibility of the science promoted by capitalists which is in question. At the same time he repeats the argument that the grand narrative has become incredible, regardless of whether it is a speculative narrative or a narrative of emancipation. If we admit his own argument, scientists are 'silenced' because of the terror employed by capitalists. While Lyotard omits the causal factor to account for the emancipatory measures, Fredric Jameson seems to begin with the causal factor. To quote Jameson, '... this whole global yet American postmodern culture is the internal and superstructural expression of a whole new wave of American Military and economic domination' (CLC, p.5). Thus for Jameson it is the new economic situation which produces 'superstructures with a new kind of dynamic' (CLC, p.xxi). Jameson pictures the present cultural scenario of the West, especially America. His endeavour is to present a cognitive mapping as he declared in the *Political Unconscious*.

Jameson also notices the fact that the so called 'new narratives' lack the allegorical capacity to map or model the system (CLC, p.349). In addition to this, Jameson discusses the sheer commodification in the realm of social life

and analyses the 'new international space in question' with a view to at least imagine an emancipatory agenda. As he writes in his foreword, 'for political people who are still committed to radical social change and transformation', Lyotard's contribution becomes valuable as it sheds light upon the 'problematic' of the contemporary society. But Lyotard evades the problem of emancipation as he wanted to keep a particular distance from the politics of emancipation. If Marxism serves as a methodology to reveal the problematic of simulacrum, why does it fail to serve the emancipatory measure? Here we confront the specific situation where intellectuals and philosophers have once again started 'interpreting the world' and kept away from emancipatory movements. The repression inherent in the new form of organization and distribution of knowledge is due to the economic exploitation of the owning class. Whatever be the difference, the owning class exhibits from the early capitalist state the concentration of wealth. This becomes more and more explicit, and hence science and scientific institutions become a tool in the hands of the 'richest' like any other apparatus of state ideology.

Even great thinkers are controlled by the dominant ideology and hence they restrain from emancipatory activities. Early capitalism produced a condition where the workers could not get their due while late capitalism (if it is so) produces a condition where the workers have to look after a lot of 'unemployed' even when they are getting more wages. As Jacques Derrida says in his *Spectres of Marx,* the condition of the world demands us to anticipate an emancipatory force to come back as the spectre which haunted Europe during the nineteenth century. Marx says: 'The mystification which dialectic suffers in Hegel's hands, by no means prevents him from being the first to present the general form of working in a comprehensive and conscious manner' (*Capital*, Vol.I, p.25). Similar is the case with Lyotard who interprets the contemporary situation engulfing the whole world. It is the fear of the real emancipation of the working class which limits Lyotard to proceed further in the realm of 'simulacrum'. For him, 'the function of the differential or imaginative or paralogical activity of the current pragmatics of science is to point out these metaprescriptives, science's ("presuppositions") and to petition the players to accept different ones' (PC, p.65). Here Lyotard commits a grave mistake in considering the owners of the means of production to accept the paralogical activity even when they remain in power. Little narratives and paralogical activities will remain useless as far as the hegemonic ruling ideology prevails. The new forms of domination can be overthrown only by means of deliberate political activity. It is noteworthy that the world

has once witnessed such a massive movement. The present political scenario is becoming more stringent than the early capitalism. So the question of postmodernism should lead us to evolve a 'metaprescriptive' counter-strategy which can save not only science but also mankind from the perils of the 'prescriptive utterance' of the ruling class.

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Human Deductive Reasoning, Genetic Algorithms: A Proposed Model

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Is deduction exclusively a matter of logical form? Does it necessarily have to rely on a rule base to arrive at a legitimate conclusion? In answer to these questions, this paper strives to propose an alternative to the existing models, as found in theories of reasoning such as the *formal rule theory* and the *mental model theory.* The proposed model is presented below with an overview of the existing theories.

1. INTRODUCTION TO THE PROBLEM

On the issue of reasoning in general, two starkly contrasting theories, which have been aptly labeled as the *strict* and the *loose* view (Rips, 1990, pp. 322–3) of reasoning, propose the following:

The *strict* view maintains (see for instance McCarthy, 1988) that reasoning in humans, regardless of whether it is deductive or inductive or abductive, takes place in discrete steps from one belief to another at a time. The progress is always stepwise and is relatively local in the sense that only certain beliefs among the existing ones are effective in triggering a new belief. As for instance, in order to go to *orange juice is tasty and nutritious* from *fruit juices are tasty and nutritious*, one may have to believe *orange juice is a fruit juice*. However, for this inference, other beliefs, e.g., *the earth is the third planet in the solar system,* do not matter. Also, on this view there will always be some distinguished special structure or feature of beliefs which play a key role for the inference while others are non-essential for this purpose. For instance, in the transition from *orange juice is tasty and nutritious* to *orange juice is tasty*, the expression *and* plays an important role whereas the rest can be replaced by almost any other belief. This special structure helps to classify inferences; as for instance, the inference just

mentioned can be grouped with all inferences of the kind *A and B, therefore A* as having the *same form*.

The *loose* view, on the other hand, does not see reasoning as a step-by-step affair with a fixed increment in information at a time (see Rumelhart et al., 1986). Rather, it considers reasoning as a continuous process of updating the strength of some beliefs and also as a process of decreasing the confidence in some other beliefs. For instance, if I believe that *orange juice is tasty and nutritious*, it may help to increase my confidence in *some juices are tasty and nutritious*, while my confidence in *orange juice is not good for health* may decrease. Also, this theory does not endorse the idea of a special structure or form in beliefs. According to this view, as far as revising the confidence in a belief is concerned, no part of a belief is more essential than the rest.

An effort at combining the two views can possibly lead to the tempting hypothesis (e.g., Rips, 1990, p. 325) that the *loose* view applies to our inductive reasoning whereas the *strict* view applies specifically to how we reason deductively. Inductive reasoning can be seen as an overall process of adjustment in the beliefs held; i.e., as a process of revising and updating of the strength of prior beliefs (based on their subjective probability) on the event of addition of a new belief. Deduction, on the other hand, can be viewed as a matter of doing formal proofs in which a conclusion is derived in a stepwise manner from a given set of premises guided by a specified set of abstractly formulated rules. In the *formal proof of validity* for deductive arguments in standard truth-functional formal symbolic logic, for instance, each step in the sequence is either an originally given premise or is a statement deduced from the earlier steps following a logical rule of inference. The proof culminates in finally showing the conclusion as a legitimately drawn statement from the preceding steps. The premises are assumed as true, and the truth of each ensuing step is ensured by the rules of inference. If this proof procedure represents how we do deduction naturally, then the *strict* view appears to describe deductive reasoning quite fittingly.

Along this line of thought, a stronger claim about the correspondence between the formal procedure of logic and the process of deductive reasoning in us has been around for a long time. It is claimed that the deductive proof-procedure in formal logic provides a closely resembling model of what happens mentally as people reason deductively, and that there is an inherent mental logic in people which too corresponds to the formal deductive logic. Similar to its formal counterpart, for instance, this mental logic is also

supposed to have a set of abstract, generally formulated inference rules or schemas that are the same as or similar to those of formal logic. Historically, Jean Piaget was the first psychologist to propose the idea of an internal logic or mental logic corresponding to the formal logic. In their study of development of reasoning in children, Inhelder and Piaget maintained that as children internalize their actions and introspect on them, a series of *formal operations* take place in the mind which correspond exactly to those of propositional logic. They wrote:

> In short, reasoning is nothing more than the propositional calculus itself. (Inhelder and Piaget, 1958, p. 305)

In recent days, this line of thought, which may be called the *formal rule theory* (Evans et al., 1993, p. 12) or the *mental logic theory* (Johnson-Laird, 1983a), has gained renewed support. Some interesting experimental studies have been conducted in psychology for instance. Various proposals have been made regarding the exact number and the nature of the inference schemata needed for internal or mental inference (Braine 1978, Braine and O'Brien 1991, Johnson-Laird 1975, Rips 1983). Other studies have tried to establish empirically that people do indeed reason by formal rules (e.g., Braine et al. 1984). A common conclusion among all the formal rule theorists is, for instance, that Modus Ponens, i.e., the rule of formal logic which allows us to infer q from $p \supset q$ and p is a common rule of reasoning which people in general possess.

As has been pointed out (see e.g., Evans et al., 1993, p. 14), the pivotal assumption of the formal rule theories is that reasoning, especially of the deductive kind, progresses and is achieved only by following a set of abstract, purely formal, widely useable mental inference rules. In formal logic, the rules are supposed to be patterns or *logical forms* of valid arguments, such that regardless of the content the simple fact that a pattern is followed in an argument would ensure the validity of the given argument. In *formal rule* or *mental logic theory* too the rules serve as internal patterns or forms, and reasoning is supposed to proceed in modular chunks on the basis of pattern-recognition. The reasoner simply has to recognize the pattern in a given case and know which rule it matches with in order to obtain the next step. The *formal rule* theorists claim that the fact that arguments of certain types are unanimously recognized as logically correct shows that people in general share certain special structures or schemas (Rips, 1990, p. 330). This

also apparently proves the overall universal applicability (irrespective of the content) of the schemas.

Lately, however, this traditional view has attracted considerable amount of criticism. In particular, the formal purity attributed to these inference rules has been questioned. Consequently, the alleged universal applicability of these rules, irrespective of the content, too has been under attack. It has been argued that empirical investigation shows that the application of these rules by humans in their reasoning is not so much a rigidly formal affair as it is made out to be. Critics of this position (for instance, Evans 1991, Johnson-Laird and Byrne, 1991) have claimed that people are indeed affected by the content of a deductive inference, and at times even belief biases (see for instance, Evans and Pollard, 1990) significantly affect the rule usage in our reasoning. They maintain that the formal theory cannot fully explain either of these incidents. Byrne (1989), for instance, asked two groups to draw inference of the Modus Ponens form; e.g. from *if she has an essay to write then she will work late in the library* and *she has an essay to write*, to *she will work late in the library*. The control group certainly drew the Modus Ponens inference. However, the other group, who had been given an additional pointer *if the library remains open then she will work late in the library*, tended to shy away from the conclusion, thus apparently *suppressed* the use of the popular rule of Modus Ponens.

The proponents of the formal rule theory, of course, do not agree that the theory has any shortcoming or that it fails to take into account any significant aspect of our reasoning (see e.g., Rips, 1990). They insist that the rules strictly apply to the *logical form* of the assertions, and the consideration of the content or interpretation of a premise merely assigns a different logical form to a premise. The idea of an underlying logical form has a long tradition in logic. In his theory of syllogisms, for instance, Aristotle asserted that certain inferences are valid *because of* their structure or form. Form may be understood as a matter of syntax, as a certain configuration of words in the premises and conclusion with special words occupying special positions.

Critics, however, have argued that given the complexity of language and considering the way we actually reason, there is no incontrovertible evidence that inferences based on certain logical rules are valid *by virtue* of their form. They further insist that there is no conclusive evidence to establish that deductive reasoning is necessarily a uniform procedure of extracting logical form and applying formal rules to it. The idea of a logical form is more of a syntactic device which formal logic uses for its own convenience and real-life deductions, they contend, certainly involve more than mere manipulation of an abstract rule-base. It has been argued, for example, that even the use of the very popular rule of Modus Ponens is not a purely formal exercise; it largely depends upon a background assumption of a *normal* factual context. This can be seen from the fact that when this backdrop is disturbed or there is a shift in the 'real and envisaged possibilities' assumed in the rule-application (Lycan, 1994, p. 234), even the conclusion drawn on a Modus Ponens rule goes wrong.

Several important criticisms against a rigidly formalistic, rule-based approach in deduction have also come from the field of artificial intelligence, where emulation of the formal rule-based decision procedure in logic has yielded rule-based artificial systems (expert systems). One of the objections is that these systems have limited efficacy and efficiency. While the rule base is the mainstay of such a system, it also becomes a delimiting factor for the system as a *ceteris paribus* clause. So, any 'ill-structured' or irregular problem becomes a bane for the system. Also, the number and the kind of conclusions which follow from a system depend largely on what rules the system has and what is allowable by the rules. Too few rules make the system practically unyielding. A large rule-base, on the other hand, creates operational difficulty for the user. Ad hoc addition to the rule-base undermines the credibility of the system. Furthermore, it has been pointed out that generally there is an adverse compromise between rules which are good for explanation and rules which are simply efficient to execute (Jackson, 1986, pp. 217–18). New knowledge often interferes with information already available and even the result of interaction among the existing rules is not always consistent or predictable.

A radical alternative to this dominant theory concerning real-life deductions as well as those performed in formal logic is now available in the form of the *Mental Model theory*. This relatively new theory tries to explain deduction as a process which, instead of depending on an abstract rule base or on recognition of formal schemata, operates by means of mental representations of the situation based on a semantic interpretation of the given specifications. The content and its proper interpretation and utilization, thus, play crucial roles in reasoning. The following inference, for instance, can be arrived at by formal rules, but people can also achieve the same conclusion by *imagining* the layout:

> The black ball is directly behind the cue ball. The green ball is on the right of the cue ball, and there is a red ball between them.

Therefore, if I move so that the red ball is between me and the black ball, the cue ball is to the left of my line of sight (Johnson-Laird, 1975).

This imaginated layout or a mental model is at the core of this theory. According to this view, deduction proceeds through three stages:

- *Comprehension*, the knowledge of content, language used and reasoner's general knowledge are the building blocks for constructing an internal model of the situation that the premises depict.
- *Description*, the reasoner comes up with a parsimonious description of the models constructed and reaches for a putative conclusion, i.e., something that is not explicitly given in the premises. Where no such conclusion is found, he responds that nothing follows from the premises.
- *Validation*, the reasoner checks whether the putative conclusion is false in any of the alternative models for the premises. If no such model is found, then the inference is valid. Otherwise, he returns to the second stage to look for a common conclusion which is true in all the models so far constructed.

The proponents assert that the mental models need not necessarily be visual images, or even perceptual items. More than the phenomenal experience, they claim, the composition of the model is important. This theory is claimed as capable of accounting for peoples' performance in various sorts of reasoning (see e.g., Johnson-Laird, 1983a, 1983b) and for all connectives including negation and disjunction. On this view, errors occur because of the reasoner's failure to consider *all possible* models of the premises. For this reason, the counterexample to the putative conclusion from initial models is not found and thus an illegitimate conclusion is arrived at. The reason for this oversight is imputed to the limited processing capacity of working memory (Baddeley, 1986). Details about this position can be obtained elsewhere (Johnson-Laird and Byrne, 1991, Evans et al., 1993).

While it advances a strong case for consideration of the empirical content in reasoning, the mental model theory has faced vitriolic opposition, most of which understandably has come from the adherents of formal rule theory. In general, the objection is that the theory is empirically inadequate. More specifically, some of the points are as follows. First, it is a fact that people almost unanimously judge arguments of certain types as logically correct, e.g., the ones whose form matches the Modus Ponens (see e.g., Braine et al., 1984). The mental model theory is unable to explain this generality of inferences which present the best case for a logical form or a special structure

(Rips, 1990, p. 330). Second, the theory is unclear on certain significant points (Rips, 1984, Goldman, 1986). It is not very clear, for instance, on how exactly new beliefs are formed, or on how they are justified and explained; whereas, the formal theory has a clear advantage on these points as it can invoke various formal mechanisms, such as derivation by instantiation of a certain schemata. This relative methodological obscurity is a major hurdle for the general acceptance of this new theory. Finally, metaphysically mental models are redundant. Everything that mental models can accomplish can be represented by propositional representation (Rips, 1986), and arguably can be further reduced to neural events (Churchland, 1986).

In all fairness, plausibility of theory of mental models does not seem to necessarily contradict or supplant the hypothesis of special structure or logical form of the formal rule theory. Pattern-recognition and categorization of inferences are widely popular phenomena in deductive reasoning. Both of these events suggest quite strongly that human reasoners consciously or unconsciously manipulate some sort of special structure or form while reasoning. The weakness of formal theory, however, is that it equates deductive reasoning with almost mechanical rule-manipulation or schema-recognition. Thereby, it makes itself less suited to domains that are ill-structured or where the examples are not well-behaved. Typically, in order to cover these irregular instances, the theory has to take the help of non-reasoning or non-logical processes, such as *conversational implicatures*[1] (see e.g., Grice, 1975, 1989). In this sense, the mental model theory is more robust than the formal rule theory. It allows for a certain amount of flexibility and individual difference that comes with imagination.

As neither of these theories appear to be incontestable, I would like to take this opportunity to propose another hypothesis regarding human deductive reasoning. Borrowing from the idea of natural selection in biology, roughly the proposal is as follows: Deductive reasoning may be envisaged as an *evolving search* for the conclusion from the given premises. The reasoner starts the search using the premises as the moorings; for, the contents of the premises in each case define and delimit the scope of the specific inquiry. Out of this search, the solution(s) gradually *evolves*; the *evolution* usually involves a number of *tries*. Each *try* could be a tentatively proposed solution or even a batch of tentative solutions which the reasoner generates using the information present in the premises of a given deductive argument. However, each *try* is not a new try. For, the subsequent efforts are built upon the performance of the earlier ones. A *try* is screened using some *fitness-crite-*

rion,[2] so that in each case a better or the *fitter* solution or solutions are selected non-randomly over the poorer ones. The *unfit* solutions, which lose out in the screening process, are eliminated from further consideration; that is, they are terminated from the survival race for candidacy as a solution. The survivors are carried over to the next generation of solutions, i.e.; they are included in a fresh generation of solutions that replaces the old one. In turn, the survival chances of the members of this new pool of solutions are also weighed against the screening test or the fitness-criterion, and again only those solutions are picked out which are even better. Thus the process continues until it *converges* onto a solution, or a set of solutions, which is the best possible or the *fittest* under the circumstances. The *convergence* may be understood as the level at which all the specific requirements set by the given premises are met with satisfactorily.[3]

The 'evolving' search for the conclusion is dynamic. In consonance with the mental model theory, it allows not only for the unique specificity that may be present in the semantic content of each piece of deductive reasoning, but also for individual differences among the reasoners. According to this model, the beginning of the search can be from any random point within the problem space. For a given problem, what the first 'try' or any of the subsequent *tries* is going to contain in terms of solution(s) will vary from reasoner to reasoner. However, this flexibility and randomness at the onset of the search for the conclusion does not imply that the end-result of the search also will be a randomly selected item. The selection test or the *fitness-criterion* is a non-random process, and a consistent use of it throughout the search will ensure a non-random result. Also, this is not to entirely rule out the possibility of pattern-recognition and the use of categorization of inferences by the reasoners. However, unlike the formal theory, recognition of a certain structure or pattern among the given premises is not considered a necessary condition for the beginning of a search in this model, although it may be a sufficient condition for prompting a search for some reasoners.

Although in every *try* solutions are freshly generated with the inclusion of some members of the earlier generations, it is not a needless repetition of the same solutions. An interesting feature of 'evolution' is that over the 'generations' remarkable differences can develop between the initial pool of solutions and the end-pool. For, although the initial pool is randomly generated, the screening test affects the nature of the population of the subsequent pools. Moreover, depending upon the creative ability of the reasoner, interesting recombinations and alterations may take place within a pool. Occasionally,

for instance, in the search for a better solution the reasoner may arrive at a new solution by exchanging or interchanging the information contained in two separate solutions. The end-result will be a new solution that was not previously part of the solution pool and that resulted from *cross-breeding* among the previous solutions. Each of these recombined solutions will contain part of the information of some previous solutions. If these *crossbred* solutions are found better than the original ones then they, and not the originals, will be included among the next batch of solutions. New solutions thus created by the reasoner help to bring a desirable diversity in the solution pool. Similarly, at times the reasoner may like to alter some solutions very slightly so as to see its overall effect on the search itself. The result will be a *mutant* solution, which, if it proves to be better than the original, will be part of the next batch of eligible solutions. Thus, the starting and the end pool of solutions, although they are linked, may not be identical ones. The upshot is that in the proposed model the process of human deduction is envisaged as a flexible, robust process that cuts a self-correcting and self-generating trajectory across the problem space. Out of this, the conslusion *evolves*. In a sense, over batches of tries the initially created solutions are further sorted and recombined to produce newer and improved solutions until the best solution is arrived at.

The process just described is not purely formalistic, as it does not really make use of an abstract, rigidly defined rule-base for further progress in reasoning. Also, it does not view deductive reasoning as necessarily a stepwise process in which the inferential knowledge is always incremental. On the other hand, unlike the mental model theory which requires a parsimonious description of the whole problem to begin with, there is no such requirement in the proposed model. Problem-solving in deductive reasoning is envisaged as a developmental process, out of which the final conclusion emerges.

In order to lend some initial plausibility to this hypothesis, a computer simulation of the process has been designed and tested. To do justice to the ingrained biological analogy in the model, we took the help of the evolving computerized search routines of the Genetic Algorithms (henceforth referred to as the GA) to develop an algorithm which roughly simulates what we see deduction as. A short introduction to Genetic Algorithms is provided in section 2. Details about the algorithms and the changes we had to make in order to suit the application of the GAs to this novel set of problems are reported in sections 3 and 4. Further technical details are reported elsewhere (Chakraborti and Sastry, 1998). As mentioned earlier, for the computer pro-

gram, the 'fitness criterion' is set at consistency with the truth of all the given premises. The premises are assumed to be true, and the acceptability of a conclusion in any batch must be first established against their purported truth. We wanted to see if the GA-based technique could perform these basic tasks involved in deductive reasoning:

- To confirm a given conclusion,
- To find the conclusion from a given set of premises, where no conclusion is given,
- To establish invalidity.

From deductive arguments, the expectation is that the premises will provide conclusive support for the conclusion; given the truth of the premises, the deduced conclusion cannot but follow. Hence in all three tasks, our basic assumption is that if the argument is valid, then the conclusion will be found among statements which conform to the truth of the premises.

2. ON THE GA

The Genetic Algorithm (GA) is a computerized search algorithm based on the biological principles of natural selection and evolution. It was developed by John Holland in the 1960s (Holland 1970, 1975) originally for computers to find solutions for difficult problems primarily in optimization and artificial intelligence (AI). Since then, the GAs have come a long way to find interesting and widely diverse applications in not only various engineering branches but also in fields such as biological sciences, business, social sciences, etc. (see for instance, Goldberg, 1989, pp. 125–9). Perhaps a reason for the growing popularity of this flexible, innovative and robust search procedure is its conceptually simple working principle. Using the problem at hand as a defined context, the GA starts searching from a randomly generated population of probable solutions, usually coded in the binary form of a sequence of 1s and 0s (bit strings). A set of variables for a given problem is coded in a string analogous to a chromosome found in natural biological evolution. Each string thus contains a possible solution to the problem. Among these, the 'better' or the 'fitter' solutions are sought out for recombination with each other to generate a fresh batch of solutions (the *offspring*) to replace the poorer solutions. Through this procedure, repeated enough times depending upon the nature of the problem, improved solutions usually *evolve.*

A payoff method based on a 'fitness criterion or criteria' (objective function) is used to determine which among the initial pool are the 'better' or

'more fit' solutions. Each string thus is assigned a certain fitness value. On an existing pool of solutions, the GA simulates some of the processes observed in natural evolution. In natural evolution, recombination processes create different chromosomes in children by combining material from the chromosomes of the two parents, and mutation may cause chromosomes of children to be different from that of the parents.

The GA incorporates these features of natural evolution for solving problems. The following genetic operations are usually performed to create a new pool for the next generation of solutions:

- *Reproduction*: Natural selection links the fitness or unfitness of a chromosome with its structure. Based on that, it causes the chromosomes that encode successful structure to reproduce more often than the ones that do not. Analogously, in GA, only the strings with *higher* fitness values get *reproduced,* i.e., one or more copies of these strings are made to build up the pool of the next generation. As the 'unfit' strings are not allowed to contribute in terms of offspring for the future generations, they are thus gradually weeded out from future generations.
- *Crossover*: Two strings (the parents) are selected randomly from the existing pool to undergo crossing over. Crossover is the process of creating two offspring by swapping part of the parent strings. The new crossbred strings thus retain part of the historical information from each parent. The underlying idea is to find a new and improved solution by juxtaposing some of the best past partial solutions.
- *Mutation*: It is the occasional (with a low probability) random alteration of the value of a bit position in a string. The aim of this operation is to slightly modify the solution in order to perform a local search for any better solution in the neighbourhood of an existing gene in a string.

The new pool, thus created, is similarly searched for 'best' partial solution(s). The process is continued for several generations until the best solutions emerge. This is just a thumbnail sketch of the GA. Further details about it can be found elsewhere (e.g., Goldberg, 1989, Mitchell, 1998, Deb, 1995).

3. ON THE COMPUTER SIMULATION: THE ALGORITHM

Our study was conducted on arguments that would come under the purview of standard first order propositional and predicate logic.[4] The aim was to see whether the algorithm could perform some of the basic tasks involved in human deductive reasoning. For this initial study, we set the prerequisites as follows:

- That the data given in the premises and conclusion should be expressible in terms of the basic English connectives *and* (logical and), *or* (inclusive or), *if-then* (*material implication*), *if-and-only if* (logical equivalence), *not* (logical not). This requirement is set mainly for the machine to understand the parsing, and should not be read as the latent concession or commitment of this model to 'logical forms' or 'structures'.
- That each given statement will allow only two value possibilities: either true or false.
- That the truth or falsity of sturcturally complex statements will depend on the truth or falsity of its simpler components.
- That the set of facts or initial data should provide conclusive support for a proposed conclusion.

In Table 1, a sample argument is cited. It states a problem and has an unstated conclusion; the task is to find out what follows from the premises. Table 1 also shows the simple statements (the *variables*) occurring in the premises each of which are identified by a uniquely assigned capital letter.[5] The conclusion that rightly follows from the premises is: Among the equipment, the flash drum is leaking. Section 4.1 reports how this conclusion is arrived at by our algorithm, and also shows by a side-by-side comparison how the same conclusion can be arrived at by the more traditional method of formal derivation. However, before that, in order to facilitate the understanding of how the algorithm works and also to provide a look from the inside at the algorithm, a brief discussion is presented below on the technical components involved, their significance, and also on how we have adapted the GAs to suit the nature of our project.

The usual components required for a traditional application of the GA, such as the *variables, individual strings,* the *fitness of a string*, etc., all had to be redefined and suitably interpreted for this non-traditional non-quantitative application. For instance, as opposed to the usual numerical variables in GA, in our case the *variables* used stand for the structurally simple statements that occur as the basic components of the premises and conclusion in a given argument. These are supposed to guide and affect a given piece of reasoning with the information they bring forth. Their representation in the solution of the problem is essential and we have followed symbolic logic in representing each of these statements by a unique capital letter. Similarly, an *individual string* in more traditional usage of the GAs is a bit-string, i.e., is a collection of 0s and 1s. In our algorithm an *individual string* is equivalent to a proposed solution, and therefore the string of 0s and 1s must mean

TABLE 1: STRUCTURAL COMPONENTS, COMPONENT SYMBOLS OF A SAMPLE ARGUMENT

Premises:	**Either** the preheater **or** the reactor is leaking, **or either** the fractionating column **or** the flash drum is leaking. **If** the pressure recorder gives an alarm signal **then** the pressure decreases drastically. **If** the pressure decreases drastically, **then** the flash drum is leaking. There is a leak in the preheater **if and only if** the inlet flowrate to the reactor increases. **Neither** the inlet flowrate to the reactor increases **nor** the pressure recorder gives an alarm signal. **If** the reactor leaks **then** the fluid level in the reactor decreases, while if the fluid level in the reactor reduces **then** the level recorder gives an alarm signal. **If** the level recorder does **not** give an alarm signal, **then either** there is a leak in the preheater **or** there is **no** leak in the fractionating column. It is **not** the case that either the pressure decreases drastically **or** the level recorder gives an alarm.
Conclusion:	Which equipment is leaking?
Components & Symbols:	**H:** Preheater is leaking **R:** Reactor is leaking **C:** Fractionating column is leaking **D:** Flash drum is leaking **P:** Pressure recorder gives an alarm signal **S:** Pressure decreases drastically **I:** Inlet flowrate to the reactor decreases **L:** Fluid level in the reactor decreases **V:** Level recorder gives an alarm signal

something in relation to the given problem. To ensure this, in our case a particular bit position in the individual string is reserved for a particular individual variable. 0 is interpreted as falsity and 1 as truth. As mentioned earlier, in our algorithm, each component or variable is regarded as either true or false. So, the bit-value 1 or 0 in a particular position in the string will represent the truth or falsity respectively of a particular component variable. This way we tried to capture the link between a particular piece of information, its truth-value and its role in a proposed solution (the string). In Section 4, these points are illustrated with the help of sample arguments.

For determining truth and falsity of compound statements, i.e., for statements which contain other simple statements as components, we followed the basic truth-tables for *and*, *or*, *if-then* etc. as found in symbolic logic (see for instance, Copi, 1979). All strings are of the same size, and the length of a string, i.e., the total number of bits in a string is taken as equal to the number of components in a problem; so that each simple component in a given problem is part of the sequence in a string. For the argument mentioned in Table 1, for example, the string will be nine-bits long as there are nine discrete simple components. For our study, only arguments with a minimum of four components were considered, as the use of the GA becomes trivial with less than four components.

First, emulating the human reasoner, in the beginning in the algorithm a number of strings are randomly generated. This becomes the initial pool of solutions proposed. According to the traditional GA usage, the total number of strings thus generated will depend upon how many variables are involved, hence eventually on the length of the string. For instance, if the string is 7 bits long, roughly there will be about 30 strings in the pool. For every subsequent generation of solution strings, the number will remain the same. Second, the initially proposed solutions, i.e., the generated first pool of bit-strings, are then put through a fitness-test. In our case, we used the following fitness-assignment strategy.[6] The fitness-value for all the individual strings is pre-assigned to an arbitrary value of hundred. This treats all solutions at par in the beginning. Then we search for only those strings which retain their fitness-value of hundred even after the screening process. In order to find these, a search is conducted for those strings which *violate*, i.e., are in conflict with any of the given premises. For violation of premises, we check if the individual string satisfies any of the falsity conditions of a premise. In the Appendix we have provided a table (Table 6) with the falsity conditions for *if-then*, *and* etc., as found in standard symbolic logic; the table also contains in programming language C the encoded form of these falsity conditions. For each violation, the individual string is penalized by deducting ten points (arbitrary scale) from its existing fitness-value.[7] With lesser fitness-value, the solutions *which are inconsistent with any of the given premises or are consistent with the falsity condition of any of the premises*, are easily marked as *poorer* solutions. Strings of this kind are not allowed to leave copies (children) in the subsequent pool of solutions. After the screening, the strings which retain their fitness-value of hundred will be the strings which are consistent with the truth of all the premises.

As there could be more than one solutions which satisfy all the facts in a given case, all and only the distinct strings with a fitness value of hundred are collected and stored. However, as every string has a long sequence of 1s and 0s, this set of strings thus obtained may contain information about the variables other than the ones occurring in the proposed conclusion. So, a subset is formed which exclusively contains the truth-value information of only those variables which occur in the proposed conclusion. This process is done for every subsequently generated pool of solutions too. However, for the subsequent pools, it is further ensured that this second set stores only the non-repetitive truth-value combinations for the variables occurring in the conclusion. This set is then further screened to see whether any of its members confirm the falsity condition of the conclusion (as given in Table 5). If the string has a certain combination of 1s and 0s in specific bit positions which confirms the falsity condition of the conclusion, then the string is said to have shown the conclusion as false. To us, the presence of even *one* such string in the solution set indicates that the argument is invalid. For, this signifies that there exists a possibility when the proposed conclusion can be false while the premises are all true. On the other hand, if the string does not have the tell-tale combination of the 1s and 0s in the bit positions specifically relevant for the conclusion, then it is stored in a solution set which may be loosely termed the 'eligible solution set'.

On the members of this newly formed solution set, genetic operators such as *reproduction* is done first, i.e., copies of the successful strings are made for the next generation. This is how the next pool is formed. In our algorithm, because of its robust selection ability, reproduction is done through *tournament selection*. The number of competitors in the tournament selection process is kept at two, so at a time two randomly selected strings are compared for their fitness-value. The one with the higher fitness-value is selected for reproduction; that is, that string is copied and the copy is sent for the next pool of solutions. The strings with higher fitness-values may leave multiple copies for the next pool, as whenever they are selected in comparison they will win. Subsequently, cross-over, mutations are performed very occasionally, i.e., with a low probability to see if any further improvement is possible within the existing solution set. These are used mainly to bring a desirable level of diversity in the solution pool and also for a more exhaustive search of the problem space. We have used a single point cross-over technique, i.e., two strings are swapped at *one* crossing point. The mutation is bitwise, i.e., only the value at a bit position is altered. Out of

these processes, better strings, if any, become eligible to leave copies for the new pool. These string copies are then transferred to the next generation. And the screening processes and storing of screened solutions in the 'eligible solution set' as described before are done over and over again until the user is satisfied with the search. In our program, the maximum number of generations required is kept flexible and dependent on the complexity of the problem.

The argument is considered to be valid only if after the maximum number of generations, *none* of the solutions matches the falsity condition of the conclusion. A flowchart of the algorithm and further technical details about the algorithm are described elsewhere (Chakraborti and Sastry, 1998). The programming was entirely done in C.

The extension of this algorithm to quantified arguments, i.e., arguments which contain statements with quantifiers, is discussed with an example in Section 4.2 of this article. Following symbolic logic, our working principle for the interpretation of these arguments is that there is at least one individual conforming to each of the statements concerned. For a non-trivial interpretation, the minimum size for a domain of discourse is kept at a 2-element set. However, there are quantified arguments which cannot be demonstrated as invalid within a mere 2-element universal set (see e.g., Bergman et al., 1980, pp. 317–18). So, to ensure a safe, and complete search, we have chosen a 10-element universal set for interpreting and testing the truth-value of the quantified statements.

In case the conclusion in the passage is a conditional statement, the antecedent in each case is treated as an added premise (as is done in the Conditional Proof). Where γ represents a given set of premises $\{\alpha_1, \alpha_2, ..., \alpha_n\}$, the statement $\gamma \supset (\phi \supset \varphi)$ is logically equivalent to $(\gamma \bullet \phi) \supset \varphi$. The same practice is followed when the antecedent is a quantified statement. If the conclusion is an *if-and-only if* conclusion, e.g., *a if-and-only if* β, then it is equivalent to $(\alpha \supset \beta)$ and $(\beta \supset \alpha)$. Thus, for an *if-and-only if* conclusion, there are two codings as shown in Table 6 in the Appendix. The first coding is used and the solution set it generates is first stored. Subsequently, the second coding is used to get another set of solutions. All of these codings of the various types of conclusions are given in Table 6 in the Appendix.

4. RESULTS AND DISCUSSIONS

With the help of some actual argument samples, this section reports some of the results obtained by our alogrithm. Sections 4.1 and 4.2 show how the

algorithm discerns validity for both non-quantified and quantified arguments. Section 4.3 describes the identification of invalidity, and Section 4.4 is on how our algorithm detects inconsistency among the given premises. The technique has been tested on about two hundred argument samples from various sources (for instance, Copi 1979, 1996, Bergman et al., 1980). All the arguments tested were formulated in English.

4.1 Comparison with symbolic logic proof-procedure

For the sake of comparison, the problem mentioned in Table 1 is first solved in the traditional method of formal truth-functional symbolic logic. The rules of inference or replacement referred to by abbreviated names in the derivation below can all be found in I.M. Copi's *Symbolic Logic* (Copi, 1979) which we have used extensively for our study. According to the symbolization scheme given in Copi, $\supset, \bullet, \vee$, and $\equiv$ and are respectively the symbols for the English connectives *if-then*, *and*, *or*, *not*, and *if-and-only if*. The traditional proof procedure, at least in Copi's system, requires first a symbolic representation of the problem before a derivation can be attempted. As shown in Table 1, a relevant capital letter is chosen to represent a *simple* statement (structurally *simple* in the sense it contains no other statement as its component). Following Copi's scheme, the translated argument and its derivation are as given below. The numbers on the left-hand side of the proof represent a line number which is used to provide justification on the right-hand side for each line in the proof that is not an originally given premise. A sequence of 24 steps shows one of the ways in which the conclusion can be arrived at; namely, by eliminating the alternatives as shown in steps 15, 16 and 20.

1.	$(H \vee R) \vee (C \vee D)$	5.	$\sim I \bullet \sim P$	
2.	$P \supset S$	6.	$(R \supset L) \bullet (L \supset V)$	
3.	$S \supset D$	7.	$\sim V \supset (H \vee \sim C)$	← Premises
4.	$H \equiv I$	8.	$\sim (S \vee V)$	
9.	$\sim S \bullet \sim V$	8,	De. M.	
10.	$\sim V$	9,	Simp.	
11.	$H \vee \sim C$	7,	10, M.P.	
12.	$\sim I$	5,	Simp.	
13.	$(H \supset I) \bullet (I \supset H)$	4,	Equiv.	
14.	$(H \supset I)$	13,	Simp.	

15. ~H	14, 12, M.T.	← **Preheater is ruled out**
16. ~C	11, 15, D.S.	← **Fractionating Column is out**
17. R ⊃ L	6, Simp.	
18. L ⊃ V	6, Simp.	
19. R ⊃ V	17, 18, H.S.	
20. ~R	19, 10, M.T.	← **Reactor is ruled out**
21. ~H • ~R	15, 20, Conj.	
22. ~(H ∨ R)	21, De. M.	
23. C ∨ D	1, 22, D.S.	← **Flash Drum is leaking**

In comparison, for our algorithm the given passage can be encoded in programming language C as shown below:

```
Fitness = 100;
1.  if (!H || R) || (C || D)          Fitness-=100
2.  if (P && !S)                      Fitness-=100
3.  if (S && !C)                      Fitness-=100
4.  if (H && !I) || (I && !H)         Fitness-=100
5.  if (!(!I && !P))                  Fitness-=100
6.  if (R && !L) || (L && !V)         Fitness-=100
7.  if (!V && !(H || !C))             Fitness-=100
8.  if (S || V)                       Fitness-=100
```

After a complete run, the final solution set contains the result shown below:

```
H R C D P S I L V
0 0 0 1 0 0 0 0 0
```

The string has '1' in the specific position reserved for D, which stands for 'The drum is leaking'. This indicates that the only conclusion that follows from the premises is that the drum is leaking (D); this conclusion is also confirmed by the traditional method.

4.2 Example 2: Quantified Valid Argument

A sample of actual coding of the nine premises of the argument above can be found in the Appendix. Although the above argument was tested in a ten-element universe, but for constraints of space here the results are shown for a two-element universe {a, b}. Even with two elements, after the fitness-screening, the solution set consists of 125 solutions (showing that our algorithm has efficiently searched the whole search space) which still retain their pre-assigned fitness-value of 100. Sample solutions in the solution set are shown in Table 3. Each column in Table 3 represents an individual solution. For instance, the entire first column of Table 3 represents the individual string which we can call solution #1 with truth-value information about each component interpreted in the context of a two-element set {a, b}. We say that the algorithm has found the solution if for over a fixed number of iterations N, the number of solutions in the solution set remains constant. At present, based on our present empirical observation N is roughly taken to be twice the square of the string length. As for instance, N=2*20**2=800.

TABLE 2: SAMPLE ARGUMENT

Premises:	A few faulty boosters showed alarming variations in their thrust. **Any** item that showed alarming variation in its thrust was either responsible for the disaster or was investigated by the officials. **Everything that** was investigated by the officials either was set aside for further examination or was declared as safe. **All** items that were declared as safe were sent back to the assembly floor. The items set aside for further examination were **all** shipped out to the Diagnostic lab. **Any** faulty booster which showed alarming variations in its thrust and malfunctioned occasionally was marked as risky. **Every** item which showed alarming variation in its thrust malfunctioned occasionally. **No** faulty booster was both sent back to the assembly floor and was marked as risky. However, actually **nothing** was shipped out to the Diagnostic lab.	
Conclusion:	Therefore, **some** faulty booster was responsible for the disaster.	
Components & symbols:	**Bx:**	x is a faulty booster
	Tx:	x showed alarming variation in its thrust
	Dx:	x was responsible for the disaster
	Ox:	x was investigated by the officials
	Ex:	x was set aside for further examination
	Sx:	x was declared as safe
	Fx:	x was sent back to the assembly floor
	Lx:	x was shipped out to the diagnostic lab
	Mx:	x malfunctioned occasionally
	Rx:	x was marked as risky

TABLE 3: SAMPLE OF SOLUTIONS

	1	2	3	4	5	6	7	8	9	10	...	119	120	121	122	123	124	125
Ba	F	F	F	F	F	F	F	F	F	F	...	T	T	T	T	T	T	T
Bb	T	T	T	T	T	T	T	T	T	T	...	T	T	T	F	F	F	F
Ta	T	F	F	T	T	T	T	T	T	T	...	F	T	F	T	T	T	T
Tb	T	T	T	T	T	T	T	T	T	T	...	T	F	T	T	F	F	F
Da	T	T	F	T	T	T	T	T	T	T	...	T	T	F	T	T	T	T
Db	T	T	T	T	T	T	T	T	T	T	...	T	F	T	T	F	F	F
Oa	T	T	T	T	F	F	F	F	F	F	...	T	F	F	F	F	F	F
Ob	F	F	F	F	F	F	F	F	F	F	...	F	F	F	F	T	F	F
Ea	F	F	F	F	F	F	F	F	F	F	...	F	F	F	F	F	F	F
Eb	F	F	F	F	F	F	F	F	F	F	...	F	F	F	F	F	F	F
Sa	T	T	T	T	T	T	F	F	F	F	...	T	F	T	F	F	F	F
Sb	F	F	F	F	F	F	F	F	F	F	...	F	F	F	T	T	F	F
Fa	T	T	T	T	T	T	T	T	F	F	...	T	F	T	F	F	F	F
Fb	F	F	F	F	F	F	F	F	F	F	...	F	F	F	T	T	F	F
La	F	F	F	F	F	F	F	F	F	F	...	F	F	F	F	F	F	F
Lb	F	F	F	F	F	F	F	F	F	F	...	F	F	F	F	F	F	F
Ma	T	T	F	T	T	T	T	T	T	T	...	T	T	F	T	F	T	T
Mb	T	T	T	T	T	T	T	T	T	T	...	T	T	T	T	F	F	F
Ra	T	F	T	F	T	F	T	F	T	F	...	F	F	F	T	T	T	T
Rb	T	T	T	T	T	T	T	T	T	T	...	T	T	T	T	T	T	F

This set of 125 solutions (Table 3) is reduced to the following set which exclusively contains the truth-value information of only Bx and Dx, i.e., those components which occur only in the conclusion.

	1	2	3	4	5	6	7
Ba	T	T	T	T	T	F	F
Bb	T	T	T	F	F	T	T
Da	T	T	F	T	T	T	F
Db	T	F	T	T	F	T	T

The falsity condition of the conclusion **Some** *faulty booster (Bx) was responsible for the disaster (Dx)* is as follows:

	1	2	3	4	5	6	7	8	9
Ba	T	T	T	F	F	F	F	F	F
Bb	T	F	F	T	F	F	F	F	F
Da	F	F	F	T	F	T	T	F	F
Db	F	T	F	F	F	T	F	T	F

Since the reduced truth-table does not match with the falsity conditions of the conclusion, this is taken as an indication that from the assumed truth of

TABLE 4: SAMPLE ARGUMENT

Premises:	On a single trip, a trailer carries crates of stone chips, or cement, or stone slabs, or fine sand. If it carries crates of stone chips, then it also carries crates of cement. It carries crates of cement only if it carries crates of stone chips. Either it carries crates of both stone slabs and stone chips or it carries neither. If it does not carry crates of stone slabs, then the vehicle moves faster and also a crate weighs less than 125 lbs. If the trailer carries crates of fine sand, then it does not carry crates of stone chips; moreover, if it does not carry crates of fine sand then it does not stay within the legal imit of weight it can carry. If a crate weighs less than 125 lbs, then the trailer stays within the legal limits of weight it can carry. It is both that the trailer carries crates of at least one of the stone slabs and stone chips, and either it carries crates of fine sand or a crate weighs more than 180 lbs.
Conclusion:	So, a crate weighs both less than 125 lbs and more than 180 lbs.
Components & symbols:	**C** On a single trip, the trailer carries crates of stone chips. **E** On a single trip, the trailer carries crates of cement. **S** On a single trip, the trailer carries crates of stone slabs. **F** On a single trip, the trailer carries crates of fine sand. **V** The vehicle moves faster. **W** A crate weighs less than 125 lbs. **L** The trailer stays within the legal limits of weight it can carry. **M** A crate weighs more than 180 lbs.

the premises the conclusion follows. The algorithm finds the argument valid. This result is confirmed by the traditional method of symbolic logic also.

4.3 Example 3: Non-quantified Invalid Argument

The argument given in Table 4 is invalid, and our algorithm correctly identifies it as so. For establishing invalidity, we need just one solution which could confirm the falsity condition of the conclusion. In the present case, by the 5th generation the solution set contains a string as shown below:

C	E	S	F	V	W	L	M
1	1	1	0	0	0	0	1

Focusing on the variables occurring in the conclusions this is reduced to the following truth-table:

W	M
F	T

This shows W is false and M is true. As this satisfies one of the falsity conditions of the conclusion *a crate weighs both less than 125 lbs and more than 180 lbs* (as given in the Table 5 in the Appendix), this is taken as an indication that the conclusion is false when the premises are true. The argument is identified as invalid, and this result is confirmed by symbolic logic also.

4.4 Example 4: Argument with Inconsistent Premises

An added feature of our algorithm is that it can be used equally well in cases where the given premises are not consistent with each other. (see Table 5.) The argument can be written in symbolic form as:

1. $T \supset (A \supset \sim G)$
2. $(P \bullet A) \bullet (C \supset T)$
3. $I \vee G$
4. $N \supset \sim H$
5. $(C \supset N) \bullet (H \supset L)$
6. $E \equiv \sim P$
7. $(A \supset H) \bullet (N \supset P)$

← Symbolized Premises

8. $C \supset I$ ← conclusion in symbolized form

Both symbolic logic and our algorithm would mark this argument as valid. However, this is a curious consequence of latent inconsistency in its premises. Since the premises cannot be all true together, there cannot be a case of all true premises and a false conclusion. In what immediately follows, it will be

TABLE 5: SAMPLE ARGUMENT

Premises:	Given that the testimony of other attendants must be considered, if the death resulted from accident then there is no ground to support a charge of murder. If the accused took precautions before letting hot water into the patient's bath then the death resulted from accident; however, if evidence of culpable negligence is present, then the testimony of other attendants must be considered. Either the accused will be indicted for manslaughter or there is no ground to support a charge of murder. If the nature of the case is altered, then the hospital administration will not argue for limited liability. If evidence of culpable negligence is present then the nature of the case is altered, and if the hospital administration will argue for limited liability then the court will call experts in the field. The accused is liable if and only if he did not take precautions before letting hot water into the patient's bath. The hospital administration will argue for limited liability if the death resulted from accident, and if the nature of the case is altered then the accused took precautions before letting hot water into the patient's bath.
Conclusion:	Hence, if evidence of culpable negligence is present, then the accused will be indicted for manslaughter.
Components & symbols:	**T** The testimony of other attendants must be considered. **A** The death resulted from accident. **G** There is ground to support a charge of murder. **P** The accused took precautions before letting hot water into the patient's bath. **C** Evidence of culpable negligence is present. **I** The accused will be indicted for manslaughter. **N** Nature of the case is altered. **H** The hospital administration will argue for limited liability. **E** The court will call experts in the field. **L** The accused in liable.

shown (by a rough derivation) how in the traditional formal method both H and ~H follow from the same set of premises:

- Supposing that evidence of culpable negligence is present (C is true) then the nature of the case is altered (N is true, from premise #5, Simp., M.P.). If the nature of the case is altered, then the hospital administration will **not** argue for limited liability (H is false, from premise #4, M.P.), so ~H follows.
- Supposing that evidence of culpable negligence is present (C is true) then the nature of the case is altered (N is true, from premise #5, Simp., M.P.). If the nature of the case is altered then the accused took precautions before letting hot water into the patient's bath (P is true, from premise #7, M.P.). If the accused took precautions before letting the hot water into the patient's bath then the death resulted from accident (A is true, from premise #2, Simp., and M.P.). If the death resulted from accident then the hospital administration will argue for limited liability (H is true, from premise #7, Simp., and M.P.).

It is to be noted that in cases such as this in our algorithm the solution set will remain empty. Since no string will be able to satisfy **all** the given facts. Thus, as there is nothing against which the falsity condition of the conclusion can be confirmed, our algorithm will identify the argument as valid but the empty solution set will trigger a warning to the user that some possible error may be in the premises.

CONCLUSION

In this work, we have tried to show with the help of a computer simulation that it is possible to view deduction or deductive reasoning as an evolving search. The aim was to establish at least an initial plausibility of the model proposed. The model makes no commitment to the idea of 'logical form', nor does it try to explain human deductive reasoning exclusively as a matter of manipulation of these 'underlying' forms. It does not view deduction necessarily as a step-by-step incremental process. Nonetheless, it borrows from the formal theory the idea that subsequent moves in deductive reasoning grow out of the previous efforts. On the other hand, as it portrays deduction as a flexible, adaptive, and robust search for the conclusion, the proposed model appears closer to the mental model theory in acknowledging the importance of considering the empirical specifications given in each case. Methodologically, however, it seems to have an advantage over the mental model theory. It presents relatively clear explanations of how solutions emerge, evolve and are justified without invoking a system of formal schemata.

We conducted a comparative study to see if our algorithm has any advantage over more traditional methods, such as the brute force search. For this, problems of different levels of complexity were chosen. For comparison, problems were categorized as '4-variable problems', '10-variable problems' etc., and also as 'quantified problems' and 'non-quantified problems'. The comparison of efficiency was measured in terms of number of function calls made by each kind of search. The study showed that our algorithm outperforms the brute force search when the number of components or variables in the problem is greater than 6. When larger number of variables are involved, which usually require complex considerations, our algorithm made considerably fewer function calls.

Of course, there are many unanswered problems which we are still grappling with. For instance, we are yet to find out how to detect arguments that are valid in a trivial sense just because their conclusions happen to be logical truths. The future work will be on further extension of this model. The interpretation of relational arguments, for instance, is currently under investigation.

Finally, the arguments to be tested by this algorithm are expected to have, relatively speaking, a well-formulated standard set of premises which provides sufficient evidence to establish the conclusion. In case the set of premises is not *standard*, e.g., if one of the premises is missing or is not well-formed, or is suppressed for some reason, our algorithm at present will consider only what is given and accordingly will reach a verdict.

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NOTES

1. For a critique of Grice's theory of conversational implicatures in this regard, see Chakraborti, Chhanda, *The Logic of Indicative Conditionals*, Ph.D. Thesis, University of Utah, U.S.A., 1995.
2. In our algorithm we have suggested 'consistency with the truth of all the given premises' as a possible criterion.
3. For our algorithm we take *convergence* to mean to reach a stage when no new solutions are forthcoming and over generations the same solution or set of solutions is put forth as the best possible solution under the circumstances.
4. At present, relational arguments are under investigation.
5. Arguments come in all sorts of varieties. Sometimes the conclusion is not overtly stated, but needs to be deduced, as is the case with the sample provided in Table 1. Similarly, it is possible for an argument to have more than one conclusion. However, in the context of this paper, we have restricted our study only to single conclusion arguments.
6. For a discussion on earlier attempts at defining a fitness-assignment strategy and the reason why they were later forsaken and the current one was chosen, see Chakraborti and Sastry, 1998.
7. It is theoretically possible that in an argument with more than ten facts, an individual string may violate all the facts and thus end up with a negative fitness-value. However, the chance of this actually happening is negligible. Even if it does happen, in our algorithm this string would never come up as a solution, as further explanation of the algorithm will show. Moreover, since we are using tournament selection, a string with negative fitness-value will inevitably lose out to its competitor with higher fitness-value.

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APPENDIX

The following is a table containing falsity conditions of the connectives and the quantifiers as well as the codes based on these falsity conditions. (see p. 91)

It is to be noted that in this table the 'or' has been taken as the *inclusive or* which is true when *at least one* of the components is true, and *not* as the *exclusive or* which is true when exactly one of the components is true. Table 6 also shows how the quantifiers *some, all*, etc. are coded. The code is shown for a two-element universal set but it can be extended for a greater number of elements. The *any* a in Table 6 is the universal *any* as in the statement *Any fruit is nutritious* which means *all fruits are nutritious*.

When the conclusion of an argument itself is a conditional (if-then) or a bi-conditional (if-and-only if), the antecedent is used as an extra premise. Accordingly, there is an addition in the coding as well. Since we want to include the antecedent as a premise, its truth is assumed. This is done in the code by giving a penalty if the antecedent is false. Table 7 shows how this is incorporated in the code. It also shows how the code tries to preserve the speciality of a quantified antecedent.

TABLE 6: FALSITY CONDITIONS OF EXPRESSIONS, AND CODES BASED ON THEM

Expression	*Falsity Conditions*	*Code*
If α **then** β	α=T, β=F	If (α true AND β false) then fitness-=10
α **if and only if** β	α=T, β=F	If (α true AND β false) then fitness -=10
	α=F, β=T	If (α false AND β true) then fitness -=10
α **and** β	α=T, β=F α=F, β=T α=F, β=F	If (α false OR β false) then fitness -=10
α **or** β	α=F, β=F	If (α false AND β false) then fitness -=10
α	α=F	If (α false) then fitness -=10
Not α	α=T	If (α true) then fitness -=10
Some α	α a=F, α b=F	If (α a false AND α b false) then fitness -=10
All α	α a=T, α b=F α a=F, α b=T α a=F, α b=F	If (α a false OR α b false) then fitness -=10
Any α	α a=T, α b=F α a=F, α b=T α a=F, α b=F	If (α a false OR α b false) then fitness -=10

TABLE 7: EXAMPLES OF CODES BASED ON THE CONCLUSION

Conclusion	*Code*
If α **then** β	If (α false) then fitness -=10
α **if and only if** β	If (α false) then fitness -=10 If (β false) then fitness -=10
If (some α**) then** β	If (α a false AND α b false) then fitness -=10
If (all α**) then** β	If (α a false OR α b false) then fitness -=10

The following is an example of how the nine premises of the quantified argument used in section 4.2 are actually encoded in programming language C based on the codes given in Tables 6 and 7.

```
NumfalseFact = 0;
Fitness = 100;
1.  for (j = 0; j < NumOfElements;j++) {if (!B[j] && T[j])) ++
    NumFalseFact;} if (NumFalseFact = NumOfElements) fitness -=10;
    NumFalseFact = 0;
2.  for (j = 0; j < NumOfElements;j++) {if (T[j] && (!(D[j] || O[j])))
    ++ NumFalseFact;}
    if(NumFalseFact! =0)fitness -=10
    NumFalseFact = 0;
3.  for (j = 0; j < NumOfElements; j++) {if (O[j] && (!(E[j] || S[j])))
    ++NumFalseFact;}
    if(NumFalseFact ! = 0) fitness -=10;
    NumFalseFact = 0;
4.  for (j = 0; j < NumOfElements; j++) {if(s[j] && !F[j]) ++ NumFalseFact;}
    if(NumFalseFact ! = 0) fitness -=10;
    NumFalseFact = 0;
5.  for (j = 0; j < NumOfElements; j++) {if E[j] && !L[j] ++NumFalseFact;}
    if (NumFalseFact ! = 0) fitness -=10;
    NumFalseFact = 0;
6.  for (j = 0; j < NumOfElements; j++) {if (((B[j] && T[j] && M[j]) && ! R[j])
    ++NumFalseFact;}
    if (NumFalseFact ! = 0) fitness -=10;
    NumFalseFact = 0;
7.  for (j = 0; j < NumOfElements; j++) {if (T[j] && !M[j]) ++ NumFalseFact;}
    if (NumFalseFact ! = 0) fitness -=10;
    NumFalseFact = 0;
8.  for (j = 0; j < NumOfElements; j++) {if B[j] && (F[j] && R[j]))
    ++NumFalseFact;}
    if (NumFalseFact ! = 0) fitness -=10;
    NumFalseFact = 0;
9.  for (j = 0; j < NumOfElements; j++) {L[j] ++ NumFalseFact;}
    if (NumFalseFact ! = 0) fitness -=10;
    NumFalseFact = 0;
```

For the problem mentioned in 4.3, the entire passage can be coded for rule violation as follows:

Fitness = 100

1. if (!C||E||S||F)) Fitness -=10;
2. if (C&&!E) Fitness -=10;
3. if (E&&!C) Fitness -=10;
4. if (!S&&E) && ! (!S&&!E)
5. if (!S && (!(W&&V)))
   Fitness -= 10;
6. If (F&&C) Fitness -=10;
7. If (!F&&L) Fitness -=10;
8. If (W && !L)) Fitness -=10;
9. If (!S(||C)) Fitness -= 10;
10. If (!(F || M)) Fitness -=10;

The code for checking validity or invalidity is as shown below:

```
For (i=0; i < NumofSolutions; I++) {
If (!W&&M) {
    Printf ("Invalid\n")
    IsArgInvalid = TRUE;
    Break;
    }
}
if (IsArgInvalid = FALSE) printf ("Valid\n");
```

Towards a Śānkarite Approach to Consciousness Studies: A discussion in the context of recent interdisciplinary scientific perspectives

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INTRODUCTION

Brain research and brain scanning technology have revolutionized, along with the growing interest in the 'mysticism' of quantum mechanics, our understanding of consciousness[1] and cognitive processes. This 'decade of the brain' with remarkable developments debating about the elusiveness and non-elusiveness of consciousness might bring a breakthrough even for sociocultural enterprises. Since the discussion is centered on the very nature of 'humanhood', discourses are having fewer and fewer specialized and secluded argumentations. Life, death, mind, soul and other so-called metaphysical 'jargon' are of inevitable interest to the neuroscientist as well as the social anthropologist.

Though we might be phenomenologically aware of what consciousness is, very often the third person definitions of consciousness alienate something from us which is otherwise so clear and near to our moment to moment feelings. I consider this as both advantageous and disadvantageous for debating on a subject like consciousness. The advantage is in filtering out myths construed about the human mind throughout centuries of human civilization. And the disadvantage lies in the academic objectification of our very subjectivity which involves multilevel complexities. Nevertheless consciousness invites challenging discourses because of its connections with ramified definitions as well as with the personal subjectivity of the analyst.

Over the past few years a number of authors have come up with a variety of viewpoints, making it possible to thematize consciousness and have a constructive dialogue. In this paper though I will be referring to a few recent

authors, the topic of my presentation will focus on the 'neo-reductionistic'[2] trends introduced by David J. Chalmers (1995)[3], in the context of which a Śānkarite approach to consciousness will be discussed.

I. UNDERSTANDING THE 'HARD PROBLEM'

Astonishing Hypotheses

In order to confront the 'binding problem'[4] two major camps have come up with their 'astonishing hypotheses', widening the frontiers of reductionism. Francis Crick expounds an epiphenomenalistic approach which starts with one aspect of consciousness [the visual] to try and find out how it functions, using experimental procedures (Crick, 1994)[5]. In his book, *The Astonishing Hypothesis*, Crick speculates that by the end of this century consciousness may be reduced to its neural correlate. In *Shadows of the Mind*, Roger Penrose (Penrose, 1995)[6] draws a triangle of three worlds (which he holds as cyclic rather than linear and hence different from the Popperian 'worlds') such as the physical world rooted in mathematics, mental world rooted in physical structures and a third world of Platonic truths. Penrose also disbelieves that consciousness can be rooted in anything outside physical reality.[7] He with Stuart Hameroff proposes that consciousness arises from processes of quantum coherence taking place in the microtubules (protein structures) in neurons.

Non-reductionism or 'Neo-reductionism'?

Prominent among non-reductionistic theories is that which is held by David Chalmers. He aptly introduces his theory of 'hard' and 'easy problems' by the note that 'there is nothing we know about more directly than consciousness but it is extraordinarily hard to reconcile it with everything else we know.'[8] According to Chalmers, 'the study of consciousness has to distinguish between "easy problems" and "hard problem" and it is with the "hard problem" that the central mystery [of consciousness] lies.'[9] 'Easy problems' can come well under the domain of cognitive psychology and neuroscience since they involve the correlating of neuronal mechanisms/physical processes and cognitive functions. We can even expect, says Chalmers, to know how the brain integrates information from different sources and use this information to control behaviour. But the 'hard problem' is hard since we are nowhere near the answer for how physical processes in the brain give rise to

subjective/conscious experience. Chalmers defends this distinction also with the help of a thought experiment, devised by Frank Jackson, of an expert neuroscientist knowing nearly everything about colour vision but herself colour blind.[10]

How hard is the 'hard problem'?

Chalmers places the 'hard problem' within 'the puzzle of conscious experience'. If we agree that the problem of consciousness is basically the problem of 'I' having a continuous experience in spite of 'my' knowledge/ignorance about the causal connections, the puzzle becomes that of the conscious experience **r** rather than of the experience. To the question whether emphasis on conscious experience **r** will add anything new to the existing problem, the answer is a firm 'yes'. The 'hard problem' gets harder when it comes to the experiencer who has the conscious experience. Hence the question 'who is having the conscious experience?' is more significant than 'what is it like to have a conscious experience?'. Despite the personal and subjective nature of consciousness, a reducibility is possible in the realm of 'I-consciousness' which speaks more about its pervasive oneness than pluralistic existence. And also a *simple* 'Theory of Everything' having a set of physical laws and another set of psychophysical laws can eventually explain only the apparent schisms evident in any experience. The problem becomes complex when the relation between the experience and the experiencer is asked for. It is plausible that the 'Theory of Everything' will have to belong to another level of existence, since it has to stand distinct yet abridge physical processes and conscious experiences. An approach to consciousness by way of a non-reductionistic divide of 'easy' and 'hard' problems is more of physical than phenomenological import. If it is a problem of devising a theory to link the mechanism and its cognitive function, then non-reductionism initiated will have to remain rigid indirectly begging the first question.

I will argue that in an approach favouring three levels of reality such as (i) physical process leading to experience, (ii) experience of having a conscious experience, and (iii) fundamental laws linking the former two levels, the 'hardness' of consciousness will have to be always backed up by non-subjective theories compartmentalizing the problem of consciousness in three closed linear systems. Functional and operational descriptions of material systems are not readily translatable into properties owing to irreducible complexities. It is known that different complex systems manifest utterly different behaviour. To make it more difficult, there cannot be one to one

simulation of properties and behaviours at various levels. It is agreed upon by many that we 'choose' to see. Manifest properties depend upon the observables we choose to look at. Another difficulty making it harder will be to account for the reversibility of physical processes and conscious experience as Chalmers himself suggests. Can a physical process *lead* to a conscious experience or can a conscious experience simulate corresponding physical structures? This brings back the ancient puzzle whether the egg or the chicken is first. Hence it will be unbecoming for this neo-reductionistic approach to claim that it will 'one day [may] resolve the greatest mystery of the mind'.[11]

Classifying Mind and Consciousness

Both non-reductionistic and reductionistic approaches seem to equate consciousness with mind. Often there is less classification of the mental and the conscious. Consciousness is essentially subjective. But if this subjectiveness is inferred from the 'subjects' descriptions of their experiences'[12] it will be a description of their personal identities, images and sociocultural histories which are built up in the course of living. Since these descriptions vary from person to person subjectivity becomes contextual. To avoid the circularity, we have to contend that it is the mind which correlates with what we might call awareness, and awareness is only one side of the picture. As Chalmers correctly says, 'awareness is objective and physical, whereas consciousness is not.'[13]

In eastern thought this historic self or *kārmic* self is indicated by a larger term called 'mind'. Mind is borne out of self-awareness built up by a totality of subjective experiences. Consciousness, since it is considered ubiquitous in existence, has to be more than the sociocultural implications of mind. If Chalmers takes the stand that 'subjective experience seems to emerge from a physical process' and does not deny that 'consciousness arises from the brain', the mystery about consciousness will go back to 'easy problems' to be solved. This being so, there is no reason for the 'hard problem' to remain isolated. Still the distinction becomes relevant if by introducing 'consciousness' Chalmers means to imply mind and its functions. The discussion over consciousness as a transpersonal or transmental phenomenon will have to focus its attention on the experiencer or 'I-ness'[14] who experiences a conscious experience. The division of 'easy' and 'hard problem' has to replace 'consciousness' by 'mind'. Because the major difficulty in understanding consciousness is not in many having many conscious experiences but in many

having a similar notion of I-ness. If we take the position that there is nothing more to I-ness than its historicity then consciousness can be discussed as epiphenomenal or soteriological. However, neo-reductionists will be reluctant to accept this.

Two Inadequacies Facing 'Hard Problem'

Dualistic theories begin from the fundamental query about the intermediate connections between neurobiological processes and conscious states. Quite interestingly, even if causal relations are spelt out, that will not suffix to the reducibility of consciousness, since the problem is obviously more ontological than causal. I might have the knowledge of the physical processes leading to my interest in dance, but that will not answer why I am interested in dance. As Sir John Searle says (and I agree with him wholeheartedly), '... you can get a causal reduction of pain to neuron firings but not an ontological reduction. That is, you can give a complete causal account of why we feel pain, but that does not show that pains do not really exist.'[15] The contemporary debates on the 'hard problem' face two inadequacies in the coinage of the problem itself.

The very first inadequacy is in framing up a definition for consciousness. It is often debated whether or not we should bring 'unconscious' and other states also into the ambit of consciousness. Possibly for the initial convenience it offers, limiting consciousness to conscious experiences has been the dominant trend. According to Sir John Searle (Searle, 1995), 'consciousness refers to those states of sentience and awareness that typically begin when we awake from a dreamless sleep and continue until we go to sleep again, or fall into a coma or die or otherwise become "unconscious".'[16] Searle ignores two major states such as dream and deep sleep which are unarguably connected with conscious waking states. To reduce the purview of consciousness to cognitive functions and behavioural patterns in the waking state gives rather a semantic advantage than comprehensiveness. It helps us with a hidden epistemology to judge knowledge by the normality of the waking state and a metaphysic placing the real versus the dreamed or imaginal. The reductionistic definition of consciousness in terms of the waking state engenders segregated importance to respective functions like pain or pleasure, which leads to the second inadequacy of not foreseeing the contiguity of the experiencer or I-ness. It is known that the identification of a physical locus for pain or pleasure need not be sufficient for their description since these functions overlap other levels like the dream or the imaginal. In

a conscious experience like 'I feel pain' or 'I feel pleasure' consciousness gains significance by way of the 'I' or the experiencer. So it is more important to discuss the unitary I-ness which experiences the phenomenon of pain, pleasure etc. which by themselves are mere descriptive biological functions of a living system. Discrete functions like pain, pleasure etc. gain meaning/ demand explanation when they accrue to a unitary, continuing I-ness.

II. REDEFINING THE 'HARD PROBLEM'

Current discussions on the 'hard problem' of consciousness set the stage as to why/how discrete and segregated physical processes might give unitary experiences. This contention, as I argued earlier, suffers the flaw of inadequately understanding the 'hard problem'. Based on my previous arguments I propose that there is a 'harder problem' within the 'hard problem' which makes the problem really hard. The hard fact is of why/how different conscious experiences accrue to a substrating and continuous I-ness. Unless the study of consciousness gives adequate attention to the 'harder problem' within the 'hard problem' we will have to restrict our search within narrow parameters.

The 'harder problem' demands a methodological shift or an 'adequate epistemology' as Willis Harman[17] puts it. The adequate epistemology, in its ambit, has to integrate three worlds (with due acknowledgement to Popper and Penrose) such as:

(i) the physical world of physical processes/mechanisms,
(ii) the phenomenological world of corresponding cognitive/behavioural functions, and
(iii) the ontological world of I-ness/experiencehood.

Much of the analysis stops with the second level and as a result explains mind and the mental in the guise of consciousness. This calls for unavoidable semantic confusion between two similar major terms (mind and consciousness). The immediate offshoot of this non-discrimination is the attempt to causally reduce something which is very much ontological. Somewhere we have to sympathize with the idea that knowledge of causal connections are trivial as far as the ontology of consciousness is concerned. Otherwise in spite of amazing neurobiological developments we will have to remain wherever we had started. Inadequate and parochial understanding of the problem of consciousness has therefore resulted in inadequate methodologies. But in no way it is to be taken that these methodologies are of no advantage at all.

They might very well throw much light on the intricate complexities of the human, both biological and cultural. However to believe that the door will lead towards understanding the ontology of consciousness too will be blindfolding oneself.

Experience has meaning or gains meaning only in the context of the experiencer. This proposition is well accepted for its immediacy in our personal lives, in spite of being an *a priori* idea. It is equally important, for this reason, to bring forth mystical traditions of meditation and self realization into the circle of the debate. But the difficulty with mystical traditions is that quite often intuitive arguments are presented without prior clarification of the epistemology followed. Thus we are frequently met with the juxtaposition of structural explanations and ontological explanations of consciousness. Naturally this results in incompatible and diverging dialogues. To have a common platform where different traditions can debate, respective methodologies need to define their epistemic and ontological concerns. Essentially the dialogue between structural approaches (to which I would like to include some of the non-reductionistic trends discussed earlier) and mystical traditions will be centered on respective methodologies and categories. In the interface we might be able to churn out deeper definitions for the problem of consciousness *per se*.

III. TOWARDS A ŚĀNKARITE APPROACH TO CONSCIOUSNESS

Ādi Śankarāçārya's approach to consciousness, taking epistemological and ontological theses in hand, allows reductionism on certain accounts and non-reductionism on certain other accounts. Though for easy introduction his philosophy can be described as nondualistic, nondualism demands an in-depth examination so as to understand its intricate implications. Śankarāçārya gives due significance to 'experience' but at the same time in the background builds up a foundational theory of experience*r* by extending his phenomenology to three states of experience. He lays out epistemological routes holding a strong but rare methodology which also leads to the explication of his ontology. In contrast to other Brahmanical schools, Śankarāçārya's Advaita declares the ontology defined as 'something-which-is already-there'. This 'something-which-is-already-there' is designated by Āçārya variously as *aham, bodha, çit*, and the famous *ātman* and *brahman*. It will be easier for immediate comparison to equate these designations with today's much

debated 'consciousness' though the perspective behind that term is quite different.

Epistemological Routes

Śankarāçārya uses three distinct categories, along with his adherence to *Sabda*, to explicate cognitive functions as well as the role of consciousness. The cognitive mechanism involves

(i) a subject who knows (*pramāta çaitanya*),
(ii) the process of knowledge (*pramāṇa çaitanya*) and
(iii) the object known (*viṣaya çaitanya*).

These three categories are involved in the cognitive mechanism starting from the sensory level to the final conceptual level. It is interesting to note that Śankarāçārya, having foreseen the difficulty in explaining the 'experience' of non-reals which might not have an immediate object referent (like 'I feel pain'), judiciously employs a multifunctional term called *antahkarana*, which receives and arranges sense data. The *antahkaraṇa* assumes different functions in conjunction with different trans-cognitive entities, which are classified under the name *vṛtti* (the neural correlates?). *Vṛtti* reveals various objects and is of four different kinds such as saṃkalpa (pre-decisive state), *niśçaya* (decisive state),[18] *garva* (self-consciousness) and *smaraṇa* (remembrance). *Antahkaraṇa*, with these four modifications, might take up the role of *manas* (mind), *buddhi* (discriminative understanding), *ahamkāra* (ego)[19] and *çitta* (attention) respectively. The existentiality (*sat*) and reflectability (*çit*) of *Ātma* (pure consciousness) unites with the *buddhi* to give rise to the experience 'I know.'[20] The cognitive mechanism explained, includes the process of sensation, perceptualization and conceptualization. Sensation and conceptualization together help the *ahaṃkāra* to 'see' the form (*rūpa*) of the object which is already defined (*nāma*) perceptually. The reality of I-ness[21] is explained further: Āçārya contends that mind and senses are of the nature of name and form[22] and are material.

According to Āçārya's explanation of the cognitive mechanism, *ahaṃkāra* (which can be roughly translated as 'ego') is also a modification of the 'internal organ'. It implies that *ahaṃkāra* can be still reduced to its primary material correlate (*pançabhūta*). Still a piece of knowledge is phenomenologically verifiable by *ahaṃkāra* in the form of 'I know'. Śankarāçārya employs the theory of representationism by two methods of 'reflection' and 'proximity' to explain both the phenomenological transformation of a nonconscious material entity (*ahaṃkāra*) as well as to maintain

a definite dualistic position so as to highlight the distinctive nature of consciousness. He says that modifications of *antahkaraṇa* are pervaded by the reflection of consciousness, as they come to exist.[23] Using the case of a jewel and a lamp, Āçārya distinguishes the nature of consciousness from that of modifications. Just as a jewel differs in colour due to the proximity of coloured objects, consciousness appears according to the different modifications associated with it.[24] Pure I-ness never undergoes modification and intellect is never endowed with knowledge.[25] *Vṛtti*-s are manifested, known and endowed with existence by consciousness which is immediately known and different from them, like the lamp illumining other objects.[26] An agent, a means of knowledge and an object are necessary in the experience of the knower, knowledge and known. In order to avoid a *regress ad infinitum* it cannot be said that each of these three can prove its own existence. The agency of the agent exhausted in proving its own existence will not be available to prove that of the means of knowledge and the object at the same time.[27] What is intended to be governed by the action of an agent is the object of that action. Therefore the object depends on the agent and not on consciousness which is other than it. Śankarāçārya delineates consciousness from any functional role.

To extend the immutability of consciousness and mutability of the internal organ to the dream state, Āçārya introduces 'memory'. It is the same intellect which is modified differently in the waking state, which takes up various modifications in the dream state too. Thus the dream objects are seen and remembered later.[28] Consciousness witnesses modifications as it pervades them in both waking and dream state.[29]

Separating the I-ness

Śankarāçārya explains I-ness experienced from two different contexts, one which involves dualistic interpretations and the other reductionistic. It is also presumed by Āçārya that I-ness involves three phases through which it gets defined. The first phase is the intentional phase, which directs a self-consciousness towards an object, expressed as *ahaṃkāra*. *Ahaṃkāra* leads to the second phase which includes a variety of agenthoods according to the object of experience. It is in this phase that I-ness gets defined as the 'Intentor' so as to have specific interactions, of which a few instances can be 'I am dumb', 'I am happy', 'I am sad' etc. In this phase, I-ness is the custodian of personal choices, desires, ambitions etc.[30] The second phase involves the identification of I-ness with one's thought patterns and emergence of two intricate and

foundational subjective experiences of definite 'I-ness' (I am this) and 'mine-ness' (this is mine). Though the first and second phase are heirarchical, the temporal gap between these two being almost unrecognizable, the intentional phase and the intentor phase are simultaneously experienced in any experience.

Despite identification with specific objects, 'I-ness' seems to also possess the power to reflect, introspect and make itself available for other objects. This evidences that apart from phenomenological subjectiveness, I-ness is accompanied by another transempirical subjectiveness which does not identify with any object of experience. This justifies how the agenthood exhausted in one experience is made available for another.

There has to exist, in the cognitive field, a distinction between the duals, object of experience and subject of experience (which includes the aforesaid three phases of I-ness). Since Āçārya has already described the *antahkaraṇa* as material and as that which modifies into various objects, there has to be a second immutable entity which is non-causal. The object of experience is always distinct from the experiencer of experience. The knower/seer is that of a totally different nature from that of the known/seen.[31] The subjectness (*asmad*) and objectness (*yuṣmad*) which are phenomenologically separated as the experiencer (*viṣayi*) and experience (*viṣaya*) are of contradictory nature and hence one can never become the other.[31] There is a basic duality of experience which cannot be relegated to even an emergent status. Here Śankarāçārya is a non-reductionist in his cognitive and phenomenological analysis.

Ontology Defined

Āçārya holds that consciousness is dynamic in that it entails differentiation and integration of experiences. The level of differentiation could be explained by cognitive functions and further conceptualization. But to understand the functions of integration, third person accounts are not sufficient. The 'transcendence' of I-ness from cognitive to experiential level has to be contextualized in an ontological field where subjectiveness or I-consciousness is placed in its pure form. Śankarāçārya substantiates the third and ontological phase of I-ness with the help of *Śabda praṃāṇa.* He attempts a categorical explanation concurrently using specific terms *via negativa*, which indicates his adherence to not any single semantic position. *Śabda* is often employed as a translinguistic tool.

So as to define the ontology of I-ness Śankarāçarya takes epistemological as well as phenomenological routes. Along with, he maintains a distinct methodology which first analyses and then resolves different phases of I-ness into a level which he depicts as acausal and apodeictic.

In the 'Laghu vākyavṛtti' Āçārya elaborates three states of consciousness.[33] The physical body or bodily I-ness (*sthūla śarīra*) is the first presentation of I-ness. Thereafter comes the subtle body (*sūkśma śarīra*) of latent attitudes, motor and sense organs, vital airs, intellect and mind. There is the third causal body which is the I-ness identified with physical and subtle bodies in its abstractness. Curiously, he holds the deep sleep state as devoid of any cognitive activity but possessing I-ness *nearest* to its pure form. In the waking state the cognitive organ (*antahkaraṇalbuddhi*) modifies and assumes the form of objects represented by it. With the theory of waking state experiences Śankarāçārya leaves the existence or non-existence of the real-world-of-objects-there to be debated from a different perspective.[32] Nevertheless dream state experience is explained with a subjectivistic tenor. Dream objects too are modifications of the intellect. But their reality belongs to an enfolded subjective state of *sūkṣma śarīra.* In deep sleep *antahkaraṇa* remains without any modification, for the I-ness alone to be 'experienced'.

To ascertain the level of immediacy in a given experience, it is essential to discriminate whether the intended object or the I-ness intending the object is experienced first. The consciousings of objects which arise out of five sense organs is mediately known since they depend upon intervening factors. But the I-ness is immediately known[35]. It is possible to conceive of my I-ness without the aid of a prior object, when it is impossible and absurd to conceive of an object without a prior I-consciousness. Otherwise the question will be left imploring the spatiotemporality of the object—'to whom does the object appear'/'what is that which is experienced'. It is held that I-consciousness can never be an object of experience and hence can never change or modify. It cannot be selected for either experience or non-experience.[36] The specific object of experience of a specific I-ness (such as a thought of a thinker) can be objectified (in terms of reflection), thereby negating and reducing the thought along with the thinker (act as well as agent) into another specific I-ness. But pure I-ness disallows any objectification. This also shows that in any experience what is given is pure I-consciousness.

Ontology Experienced

The ontological thesis of Āçārya upholds I-consciousness as 'somethingwhich-is-already-there'. "It is there across, above, below, full, existence, knowledge, bliss, non-dual, infinite, eternal and one."[37] This thesis could be subjected to scepticism and criticized as *ad hoc* rationalization for not being soteriological. It is also one of the reasons why consciousness described by Āçārya is often mistaken as *niṣkriya* (inactive) in its literal sense. The notion of *māya* too has invited a lot of misconceptions about it, the major one implying a passive homogeneity to pure consciousness. The main argument behind such misconceptions can be traced back to a monistic labelling of Advaita.

Śankarāçārya interprets the linguistic discourse of Śabda as a transformative tool which can precipitate as well as transcend the known functions of a 'word meaning'. *Śabda* is used as a translinguistic tool 'not to create knowledge but to eliminate false knowledge'. This is because pure I-ness needs no other consciousness to make itself known, its nature being consciousness.[38] As per Āçārya, *Śabda* becomes valid by merely removing the characteristics attributed to *Ātma*, and not by making known what is unknown.[39] It was seen that any cognitive act takes place via *vṛtti* or modification of the cognitive organ. The Upaniṣadic *mahāvākyās* create an *akhanḍākāravṛtti* (a *vṛtti* which mediates specific I-ness and I-consciousness, hence *akhanḍa*, impartite), which ensues a transcendence of its own semantic function. It is summarized that since pure I-ness is of the nature of pure consciousness, it needs no other consciousness to be known.[40] He who knows the pervasiveness of consciousness never ceases to exist and is never an agent since he 'gives up' the notion of agency of being a knower of pure consciousness (pure I-ness) too.[41] Another reason is that pure consciousness never becomes non-existent and is not capable of being produced by the act of an agent.[42] The pure I (*Ātma*) cannot be accepted or rejected by itself or others, nor does it accept or reject anyone else.[43]

In his exegetical method, Āçarya draws up five stages so as to understand the phenomenological as well as non-phenomenological factors involved in an experience. A simple version of these stages could be

Stage 1 I,
Stage 2 It,
Stage 3 It, is experienced by me,
Stage 4 'It' that which is experienced and 'I' who experience 'It' are not opposed to each other,

Stage 5 'It' is resolved in 'I' and 'I' alone remains.

There is an initial separation of I-ness and object of I-ness. The pure I-ness is distinct from the body, sense organs, mind, intellect and their functions, it being a witness of these.[44] Here Śankarāçārya takes a non-reductionistic stand in holding that for any experience to be possible it should have an agent (specific I-ness) and a corresponding object. An experience is intelligible only in terms of these duals. It is also said that it is the *antahkaraṇa* which modifies into the means of knowledge (*karaṇaṃ*), object of knowledge (*karma*), the agent (*kartа*) and the act (*kṛiya*).[45] The object of experience as well as the agent of the specific experience are both modifications of *antahkaraṇa*. But these material evolutes gain a phenomenological meaning of being 'experienced' and 'experiencing' because of the non-conditional proximity of consciousness. The object experienced and the specific agent/experiencer of that object are relative and co-existent. One has meaning only in terms of the other, and one cannot become the other. The dualism implied here is obvious.

To note the reductionism advocated by Śankarāçārya we have to delve into the various levels of I-consciousness keeping aside its cognitive content. The I-ness which is pervaded by the reflective consciousness is called the knower/agent of the act of knowing. Pure consciousness is distinct from these three (act, agent and the means of act).[46] Different epistemic modes like 'right knowledge', 'doubtful knowledge' and 'false knowledge' are mutable. But they are all pervaded by pure consciousness.[47] Pure consciousness manifests modifications without itself undergoing any change. Elaborating, Āçārya says that undifferentiated consciousness—*nirvikalpa çaitanyaṃ*—presents itself in the interval between two modifications, when the preceding one has died out and another is yet to appear.[48] Differences in I-ness (specific I-ness-s) are due to modifications of the cognitive organ.[49] Reductionism involves the specific I-ness and pure I-ness. It is not a segmental resolution of the specific I-ness into pure I-ness, since pure I-ness is already maintained as acausal. Through a method of *adhyāropa apavāda* the modification is first discriminated and then negated. The analogy by which Āçārya explains this ontological reductionism is that of the relationship between pot-space (*ghaṭākāśa*) and vast-space (*mahākāśa*). The pot-space is distinctly known. But it is also known that both pot-space and pot are modifications of the vast-space, and also that they are not opposed to each other. Thought pot-space is a modification, it is not a modification by a constitutional change of the substance

(*pariṇāma*) but an apparent modification without undergoing any substantial change (*vivarta*). Hence pot-space is understood as vast-space and thus reduced to vast-space while it exists.

Reductionism is not on the line of resolving two contradictories, or resolving one into another, but by way of discriminative understanding (*vivēka jñāna*) of the duals as having a nonseparate relationship. Pure I-ness is other than the experienced. For there exists nothing other than pure I-ness.[50] Reductionism is of the nature of non-dualistic appreciation and not of causal ordering. If at all the real is asked for, it is the nonduality.[51] In Āçāryā's scheme of ontology, reductionism is secondary while non-reductionism (discriminating the non-duals) is primary. Had reductionism been introduced first, it will have to contend with a plurality of reals, without ascertaining the nature of the real.

Resuming 'Hardness' of Consciousness

Since consciousness is best known through one's being conscious, I-consciousness has a major role in defining the parameters of 'consciousness', which is otherwise yet another cognitive term. Śankarāçārya could be labelled neither a reductionist nor a non-reductionist. If not, both. He adheres to reductionism and non-reductionism from two different standpoints. At the same time he maintains a theory of consciousness, emerging from the tension between these two standpoints. The *antahkaraṇa* undergoes modification and is subject to physical laws. But pure consciousness cannot be subjected to experimentation and (scientific or cultural) prediction. Āçārya emphasizes that phenomenological meaningness of I-ness and ontological primacy of I-ness are not opposed to each other. They are non-dual.

This description of a non-dualistic trend in Śankarāçāryā's theory of consciousness *prima facie* implies the texture of the methodology adopted. The current stand behind the division of 'easy' and 'hard problem' has either a strong experimental basis, or an extreme idealistic bent. Hence when on one hand tangible neural correlates of consciousness are searched for, on the other hand mystical and transcendental dimensions of consciousness are glorified. The 'hard problem' finds itself harder not precisely because of the complexity of consciousness but because of the parameters already predefined. To comprehensively estimate the hardness of the 'hard problem' one has to discriminate as well as synthesize the two methodologies appropriated for the study of the experiencer and for the sensory content of the experience. The task is not to arrive at reduced essential contents of experience but to trace, as far

as possible, relations between manifold levels of experience. Eventually the division of 'easy' and 'hard problem' might become transfusional or even volatile.

The Chalmersian distinction of the problem has undoubtedly introduced a clear-cut breakthrough in consciousness studies. Yet it is for ongoing research to count this breakthrough as a finality or an open-ended pathway leading beyond.

IV. CONCLUSION

In this paper I have attempted a presentation of the Śānkarite approach to consciousness in the context of recent discussions based on Chalmersian 'hard problem'. It is argued that the 'hard problem' needs to take into account the primacy of conscious experiencer to conscious experience. Śankarāçārya's approach to consciousness is centered on the analysis of I-consciousness. Explaining the I-ness of I-consciousness Āçārya develops a methodology to envisage both partite and impartite conceptions of consciousness according to realistic and idealistic trends. A non-dualistic appreciation of consciousness is also found to be contributing to the redefinition of the 'hard problem'.

NOTES AND REFERENCES

1. A cognate term like consciousness, which has been clustering religious and ethical meanings apart from philosophical and psychological implications since the time of Greek and Vedic thought, now seems to be of serious interest to a score of new disciplines.
2. A dualistic variation of classical reductionism.
3. See David Chalmers, 'The Puzzle of Conscious Experience', *Scientific American,* December 1995, pp. 62–8.
4. Binding problem is how different neuronal inputs are integrated and synchronized to give a single conscious experience.
5. Francis Crick, *The Astonishing Hypothesis: The Scientific Search for the Soul,* London: Simon & Schuster, 1994.
6. Roger Penrose, *The Emperor's New Mind* and *Shadows of the Mind,* Vintage Editions, 1995 & 1998.
7. 'Editor's Introduction', *Journal of Consciousness Studies,* Vol. 1, No. 1, 1994, p. 24.
8. 'The puzzle of conscious experience', *Scientific American,* December 1995, p. 62.

Many thanks to Swami Bodhananda, my spiritual guide, for valuable discussions towards this paper.

9. Ibid., p. 3.
10. Ibid., p. 3.
11. 'The Puzzle of Conscious Experience', *Scientific American,* December 1995, p. 68.
12. Ibid., p. 65.
13. Ibid., p. 66.
14. I use the term 'I-ness' to define the pre-experiential subjectivity and 'I-consciousness' to denote pure 'I-ness' without reference to specific experience.
15. John Searle, 'The Mystery of Consciousness', *The New York Review,* November 2, 1995, p. 63.
16. Ibid., p. 60.
17. Willis Harman, 'The Scientific Exploration of Consciousness Towards an Adequate Epistemology'. *The Journal of Consciousness Studies,* Vol. 1, No. 1, 1994, p. 140.
18. Upadēśasahasṛi 16.21: *saṃkalpādhyavasāyau tu manobuddhayoyadhā kṛamāt*
19. 'Ego' is to be differentiated from 'I-ness' which is further explained.
20. Ātmabodha 25: *ātmanah saccidamśaśca buddhervṛttiriti dvayaṃ saṃyojya cāvivekena pravaṛtate*
21. See footnote no. 14.
22. Upadēśasahasṛi 1.22: *manaśca indriyāṇi nāmarūpātmaka.*
23. Ibid., 5.4: *çaitanya pratibiṃbēna vyāptah bōdhōhi jāyatē.*
24. Ibid., 18.122: *adhibhēdādhyadha bhēdo manēravagatēstadha.*
25. *Ātmabodha* 26: *ātmanō vikṛiya nāsti buddhērbodho na jātviti.*
26. Upadeśasahasṛi 18.123: *pradhānaṃ grahaṇaṃ siddhi pratyayānamihanyata aparōkṣyattadēvoktamānumanam pradīpavat.*
27. Ibid., 18.131: *atmanō grahaṇe çāpi ṭrayāṇāmiha sambhavād ātmanyasaktakaṛtṛtvam na syātkaranakarmanō.*
28. Ibid., 14.5.
29. Ibid., 14.6: *draṣṭṛtvam ça drśēstadvyāpti syāddhiya udbhavē.*
30. Upadēśasahasṛi 17. 36, 37.
31. Ibid., 15.4: *drṣtuśçānyabhavēddṛśyam.*
32. Brahmasūtra Adhyāsa Bhāṣya: *asmad yuṣmad pratyayagōçarayō viṣaya viṣayinō tamaprakāśavat viruddhasvabhāvayō.*
33. Laghuvākyavṛtti 4: *jāgrasvapnayōrēva bōdhābhasaviḍambana suptau tu tallayē śuddhabōdho jādyam prakāśayet.*
34. See 'Ontology Experienced'.
35. Upadesasahasri 17.40: *vyavadhānādi parōkṣyam lōkadṛṣtēranātmana drṣtērātmasvarupatvātpratvātpratyakṣam brahmatatsmṛtam*
36. Ibid., 17.42: *viṣayatvam vikāritvam nānātvam va nahiṣyate na hyēyo napyupadēya ātma nānyēva va tatah.*
37. Ātmabōdha 56.
38. Ibid., 29: *svabōdhē nānyabōdhecça bōdarupatayātmana.*
39. Śankara Bhāsya of Bhagavad Gītā 2.18.

40. Upadesasahasṛi 17.41.
41. Ibid., 12.13.
42. Ibid., 12.15.
43. Ibid., 17.83.
44. Ātmabōdha 18.
45. Upadeśasahasṛi 4.3.
46. Ibid., 18.120
47. Ātmabodha 62: *svayamantarbāhyavyāpyābhāsayan.*
48. Laghuvākyavṛtti 11.
49. Upadeśasahasṛi 18.121.
50. Ātmabōdha 63: *jagadvilakṣaṇam brahma brahmaṇofnyanna kiṇçana.*
51. ŚankarācÛārya's Bhāṣya on Māndūkya Kārika 3.19.

Ibn 'Arabi—The Great Philosopher of Being in the Arabic Philosophical Tradition

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I. INTRODUCTION

Michael Sells has suggested that the philosophers and mystics attempting to describe the ineffable object use three ways:[1] i. Silence; ii. Making a distinction between speaking of God-for-us and God-in-Himself; and iii.The negative language of the classical Christian-Muslim mysticism.[2] In the second option (ii), God-for-us pictures proximity and God-in-himself pictures distance between God and humanity. Theosophical forms of mysticism attempt to show that among the mystics there is a hierarchy based on the level of knowledge they obtain. The highest form of mysticism is that which holds the contradictions together. For instance, Ibn 'Arabi[3] shows in his system how contraries like servant–master, heart–intellect, distance–proximity and God–Creation come together and are balanced.[4]

In one of my unpublished papers I have looked at how Ibn 'Arabi employs the Arabic term al-*amr* (the entire affair) to refer to the totality of (*wujud*) existence (God and the worlds). I have shown that Ibn 'Arabi posits a polarity within *al-amr*, namely the Truth (*al-haqq*) and Creation (*al-khalq*).[5] He describes *al-haqq* by the term *al-wujud al-mahd* (sheer being [SB]). He also posits inner polarity within what he calls *al-khalq*, namely, *al-imkan al-mahd* (sheer possibility [SP]) and *al-'adam al-mahd* (sheer non-existence [SN]).[6] These inner polarities are essentially part of *al-amr* and are eternal.[7]

The above description of *al-amr* and its inner divisions are explained in the greatest of Ibn 'Arabi's works—*futuhat*. In this light, I assume that the term Majesty (*al-jalal*) used in this paper refers to 'God-in-himself' and thus is parallel to SB or *al-haqq*. The term Beauty (*al-jamal*) likewise in this paper is understood to mean the same as SP or *al-khalq* and parallels the notion of 'God-with-us'. It will be pointed out that Ibn 'Arabi thinks of Beauty having two sides, namely, 'Majesty of Beauty' (level of being facing

SB) and 'Beauty' itself (level of being facing the physical creation). In order to make a distinction between 'Majesty of Beauty', and Majesty, I call the latter Absolute Majesty [AM] in this paper.

It is known from common human experience that knowledge of an object is possible when both distance and proximity between subject and object are held in tension. God-in-himself does not admit of such polarity and therefore, conceptually knowledge of this divine plan is not possible. In Ibn 'Arabi's *kitab al-jalal wa-l-jamal*,[8] however, there is indication that such a possibility exists. Mystical experiences result in some sort of mental, verbal or written cognitive restatement. If one supposes that the Qur'an is the outcome of experience of the ineffable one would have to suggest that since the ineffable cannot be reduced to any one particular mental, verbal or written characterization, the Qur'an could not be understood as giving a final picture of God. Thus, the knowledge of God is developmental and is open to humanity. I am arguing that in this work, Ibn 'Arabi intends to show that human capacity to gain proximity with AM/SB has in it a logic for developmental knowledge beyond the Qur'an.

A reading of this work suggests that it has three basic purposes:

- It is a didactic treatise whose stated purpose is to correct some assumptions of the junior Sufis (Muslim mystics).[9] The treatise gently critiques the Sufi beliefs about God's attributes of Majesty (ineffability-transcendence) and Beauty (immanence-proximity). Related to this is the Sufis' misapprehension about the nature of humanity where they are unable to hold two human contraries together, namely, awe of divine Majesty and intimacy with the divine Beauty. That is, while mystical experience generates intimacy described by the notion of Beauty, the mystic is forced to deny what he now knows when he encounters God's Majesty. Thus Beauty is that aspect of the divine transcendence, which keeps on unfolding to the mystic through the developing experience of intimacy. Majesty is that aspect of the divine transcendence, which remains yet hidden, thus generating awe of distance. The realization of divine transcendence is intended to motivate the Sufis to move closer to Majesty. The majority of the Sufis believe that their experience of the divine is final. This reflects their spiritual immaturity. What they do not realize is that their experience of awe and intimacy is perpetual and one can never convert all of divine Majesty into Beauty.[10] That is to say that spiritual knowledge never ceases to grow. I call this spiritual logic for increasing knowledge, developmental knowledge. Majesty must be preserved if a spiritual and psychological need for developmental knowledge is to become possible.
- Central to the *k. al-jalal wa-l jamal* is then, the issue of developmental knowledge. Conceptually therefore, there is a possibility of continuous expansion of the Qur'an. I am suggesting that if a possibility of knowledge of AM can be demonstrated, then one can say that Ibn 'Arabi's premise that God-in-himself is too remote for human comprehension is merely notional.[11]
- The third purpose is related to the first two points above. Though not clearly stated for whatever reason—pious feelings or threat of traditional reaction—it seems intended. It is to show the radical epistemological relativity of the traditional texts. This intention is skilfully camouflaged in the elaborate critique of the junior Sufis and the details about the nature of Being; apparently conveying the idea that knowledge gained merely re-confirms the revealed texts.[12]

II. CRITIQUE OF THE SUFIS

The traditional Islam speaks of the names of God. The names of God are his attributes through which He is revealed. The Qur'an speaks of the 99 beautiful names of God. Ibn 'Arabi picks up this traditional idea of attributes and presents his description of God in terms of the overarching attributes of Majesty and Beauty. According to Ibn 'Arabi, the Sufis are right in saying that Majesty and Beauty are the Divine attributes.[13] They are, according to him, conceptually right in holding that God in His Majesty inspires 'awe' and thus no knowledge is possible of God's Majesty. Beauty is that attribute of God, which corresponds with humanity and makes human relation with God possible. It also serves to counteract the effect of separation, distance caused by Majesty and the corresponding response of awe in humanity. God in his attribute of Beauty, is that Divine aspect which is open to human knowledge.

Ibn 'Arabi speaks of two contrary human responses—'awe' (*al-hayba*) when faced with Majesty and 'intimacy' when faced with Beauty. Majesty contains the idea of God possessing something which nothing else has, and thus causing an appropriate human response of bewildering awe. Beauty in contrast, denotes knowable ontological state causing an appropriate human response of understanding, denoted by the term intimacy. Harris' translation of the Arabic term for 'intimacy' does not capture an important element. The term intimacy (*uns*) is also the root from where the term for humankind (*nas*)

is derived. Thus, the term suggests that proximity with the Divine is innate to humans. This suggests that one cannot impose any limit to the extent of human knowledge of God.

The Sufis, however, believe that Majesty is that attribute of God, which does not face humanity. It refers to God-in-Himself. It is self-subsisting. Conceptually, therefore, they believe that no relation is possible with this aspect of God and therefore this is unknowable. The attribute of God which faces humanity is Beauty. It is the relational aspect of God and therefore knowledge of this level is possible. The Sufis believe that all sorts of knowledge (*ma 'rifa*), gained through experiences described as revelations (*najala*) and visions (*shahada*) and states (*ahwal*) fall in this category.

Ibn 'Arabi proceeds to clarify the error of the Sufis respecting the nature of God. According to him the Sufis' perception of Majesty and Beauty as absolutely simple categories is faulty. Though Majesty in itself is indivisible, there are levels in the attribute of Beauty, namely, 'Majesty of Beauty' [mb] and 'Beauty' [b].[14] The human experience of 'intimacy' in most circumstances actually is that of [mb]. The Sufis confuse the experience of [mb] with [AM].

In speaking of Majesty and Beauty, Ibn 'Arabi is trying to speak of the ontological levels of being as indicated above from the comparable concepts in the *futuhat*. I am of the opinion that [mb] and [b] are two faces of God-for-us or SP in the *futuhat*. We know that Ibn 'Arabi describes SP in terms of the picture of breath exhaled from SB.[15] [mb] may therefore, be likened to the hidden breath in the process of exhalation from [AM] and [b] to breath collecting into what is called the Cloud of moisture. This is to say that what is being exhaled as cloud also represents the inner essence of [AM], but is not the same. The Sufis, according to Ibn 'Arabi, are too quick to think that their experiences belong to the level of [AM].

In contrast to the Sufis, Ibn 'Arabi's understanding of the two basic contrary attributes of God is slightly different. According to him, Majesty and Beauty on the divine side and awe and intimacy on the human side play an important part in the phenomenal creation of diversity and individuality and its preservation. The notion of Majesty is linked as stated with awe on the human side. The exact nature of awe is captured by the term *al-qabd* (contraction). *Al-qabd* according to Ibn 'Arabi is connected to fear, which comes over the heart.[16] The picture is that of a believer who commits a mistake and then waits for punishment to come. Such an inner attitude expresses itself outwardly in a certain physical reaction as when a man who is afraid, folds himself up (contracts) from fear. In this sense the idea of

'diminution' used for *qabd* by Rabia seems correct. The notion of Beauty and its nature is captured by the term *al-bast* (expansion). According to Ibn 'Arabi it means something that can contain but itself cannot be contained and is thus limitless in its scope.[17]

Qabd and *bast* do not seem to be mere psychological states of humans. They represent the deeper states (*ahwal*) of the human heart.[18] The state of *qabd* happens when humanity witnesses Majesty. Their hearts contract and become bereft of any knowledge of God for want of intimacy or lack of ontological connection. The bewilderment leads them back to affirmation of their individuality and the reality of the world of phenomena. *Al-bast* happens when humanity witnesses the attribute of Beauty. Their hearts expand, that is they increase in order to receive the divine knowledge mediated through the ontological connection established through the achievement of ontological proximity.[19] Ibn 'Arabi points out that based on their spiritual experiences (what they have found in themselves, i.e., in the state of *qabd* and *bast*), Majesty may be equated with God's power, and Beauty with Mercy. Here Power keeps humanity epistemically poor towards God for want of human realization of intimacy; whereas Mercy keeps humanity epistemically rich towards God inasmuch as their proximity to God effects expansion of their knowledge of Him.

III. POSSIBILITY OF KNOWLEDGE BEYOND THE TRADITIONAL TEXT

Traditionally, the Qur'an is believed to contain perfect and complete knowledge of God. *K. al-jalal wa-l jamal* apparently speaks of spiritual experiences as means of reconfirming the Qur'an. That is, it seems to be suggesting that the function of experiences is to uncover what is already contained in the Qur'an. I am of the opinion that this sort of assertion is probably made with a view to lessening the impact of the suggestion that there is a possibility of developmental knowledge even beyond the Qur'an.

I have said earlier that in critiquing the Sufis Ibn 'Arabi suggests that their error is in taking Majesty and Beauty as two simple categories. He has suggested that Majesty in Itself is not an object of knowledge, for God has 'prevented us from true knowledge (*ma 'rifa*) of Him.' Majesty, therefore, denotes the non-relational aspect of God, which Ibn 'Arabi has described in his *kitab al-alif* (The Book of Alif).[20]

I have indicated that Absolute Majesty (AM) and Beauty [B] (containing a division of [mb] and [b]) are comparable to SB-SP. Thus [AM-B], like [SB-SP], forms the totality of *wujud* (being/existence). [B] is comparable to

the notion of God-with-us or SP, also called the creation (*al-khalq*). Thus, one can say that [mb] and [b] infuse all of the macrocosm. In his writings, Ibn 'Arabi has also suggested that man is comparable to SP or *al-khalq*.[21] Thus humanity, likewise, contains the fullness of [mb] and [b]. This gives us evidence of the fact that, according to Ibn 'Arabi, humanity is able to encompass [B] in knowledge.

I have already observed that [AM] causes 'awe' and 'contraction'. Ibn 'Arabi also suggests that [mb] causes 'awe' and 'contraction'. The contradiction is resolved when one considers that there are some lesser Sufis who confuse [AM] with [mb]. When they encounter [mb], and experience 'awe' and 'contraction', they are deceived into believing that they have reached [AM]. This analysis shows that some Sufis remain at the level of [b] within [B], because they are unable to recognize [mb] as part of level [B]. There are others, however, who see [b] and [mb] are part of [B] and thus are able to rise above this level.

Traditionally, it is believed that the Qur'an contains all divine perfection. It is not clear exactly which level [b], [mb] or beyond, Ibn 'Arabi believes the Qur'an represents perfectly. Ibn 'Arabi's notion of 'contraction' and 'expansion' throws some light on this problem. 'Contraction' contains the idea of convergence of being in unity when knowledge leads to bewildering 'awe' and ecstasy. This may be understood as the return or eschatological phase. 'Expansion' contains the idea of movement of being into diversity. This may also be represented as the creative phase. Ibn 'Arabi believes that these two phases are perfectly balanced in humanity, being able to comprehend both the phases. The Qur'an, according to Ibn 'Arabi, is similar to humanity in containing the knowledge of the two phases. This similarity between the Qur'an and humanity suggests that though human knowledge appears independent of the Qur'an, it is essentially the same as the Qur'an. Such an equivalence between the Qur'an and humanity further suggests that Ibn 'Arabi wishes people to believe that knowledge comes to man from the same level of being and has the same content as the Qur'an. The conceptual connection between the Qur'an and man takes care of possible allegations of innovations (for then it is possible to assert that independent human knowledge essentially confirms the Qur'an).

It is not clear yet whether the Qur'anic perfection belongs to the level of the lesser Sufis [b] or more advanced Sufis who recognize [mb] also as part of the level [B]. One can say indirectly that since humanity is capable of attaining the level of [B], it is possible that the Qur'an contains this level of

perfection. The discussion below shows some evidence for the fact that the Qur'an contains [B] level perfection.

IV. EVIDENCE FOR THE QUR'AN CONTAINING THE [MB] AND [B]

Ibn 'Arabi supports the traditional idea of the Qur'an containing perfect knowledge. To him the sign of highest perfection is in holding contraries and paradoxes together at one site. The highest of contraries, according to Ibn 'Arabi, is that of 'expansion–contraction'.[22] The expansion, it has been suggested, ensures diversity. It complements contraction or unity. Ibn 'Arabi identifies [mb] with contraction or unity and [b] with expansion or diversity and attempts to show how these, despite being contraries come together in the Qur'an.

Ibn 'Arabi divides the verses of the Qur'an into the verses of [mb] and [b] and shows how they are balanced in the Qur'an. One must remember that the central subject here is not the Qur'an or being, but humanity. Humanity functions as the most comprehensive divine field of activity of contraction and expansion. The intention clearly is to conceptually show that Qur'anic knowledge equals human knowledge. I am citing below a few instances from Ibn 'Arabi of how the Qur'an balances contraries.

Surah 42:11:

'Nothing is like Him' is complemented by 'and He is the hearer, the seer.'[23] The verse is clearly speaking of God. God is incomparable and ineffable, but He is also like humanity in that He hears and sees. The Qur'an contains this divine paradox and therefore it contains perfect knowledge.

I have observed already that Ibn 'Arabi's true intention is to show how this contrary contained in the Qur'an compares with the presence of such contraries arising independently in humanity. The focus on humanity as the locus where these contraries meet is brought out by his quote from the hadith, 'Allah has created Adam according to His Image (form).'[24] Since Adam and all humanity brings together all contraries, and it is presupposed that humanity is made in the image of God, God must be the quintessence of those who balance contraries. The Qur'anic verse above shows how God brings together the contraries in His being. Literally speaking, the verse above contradicts itself. Ibn 'Arabi's distinctive insight on the verse is as follows.

- God is uniquely other and unlike anything. He is utterly transcendent and therefore unknowable.
- God is also like humanity in that He hears and sees. He is immanent and therefore knowable.

If one looks at these assertions rationally (*ma 'aqul*), they seem contradictory. But, the assertion that God is unlike anything results from the human experience of [mb] as wholly other. The assertion that God hears and sees results from the human experience of [b]. [mb] here inspires awe and therefore effects distance between God and humanity. [b] inspires love and thus effects intimacy. These cannot come together if approached rationally or literally. If, however, we view human–divine resemblance in the figurative sense then there is no contradiction.[25] The dimension of [mb] maintains divine–human incomparability at the essential attribute level. The divine attributes, which are on the [mb] side, are not accessible to humans. The verse speaking of God–human correspondence is on the [b] side. The likeness is figurative. Like in the Arab saying, 'Zayd is like the lion.' Here the likeness between Zayd and Lion is not literal but figurative. That is, there are characteristics of Zayd, which are similar to lions; he is not literally like a lion.

Ibn 'Arabi also plays on words in order to make his point. The verse 'Nothing is like unto Him' can also be rendered as 'Nothing like His likeness.' Now in this latter case if humanity is figuratively His likeness or an image of God then between humanity and beings or things other than God there is no correspondence from the literal point of view. Thus, God–human correspondence may be seen in terms of Human–Creation relationship to suggest that there is nothing in the Creation, which is like humanity. The human distinction is in the fact that he is able to bring together the highest possible knowledge of all contraries, just like the Qur'an does in containing Surah 42:11. One can detect a sense in which humanity is preferred over the rest of the Creation. The exact sense in which humanity corresponds with divinity is in their ability to expand in knowledge leading to cognitive perfection in relation to the attributes of God, 'So the reality of human being is not bound to one estate.[26] Allah has assured him of the attributes of completeness and perfection, made him overflow with His grace, and given into his possession the keys of the divine names.'[27] The correspondence between God and humanity is in their possessing a potential for perfection and completeness. Humanity is not content with imperfect or incomplete knowledge. The imperfection is understood in terms of containing only one part of the contrary. For instance saying, 'nothing is like Him', but denying that God 'hears and sees'. The developmental knowledge is based on a simple principle—when one knows a proposition, one seeks another proposition that denies it; seek another positive proposition and its denial. Conceptually this process ends when absolute perfection is attained. In reality, this process is endless. Perfection is attained in relation to particular levels of being, say for instance, [b] or [mb] and so on.

I have observed that it was the lesser Sufis who considered [mb] ineffable. This level inspired awe in them. A lesser Sufi reads the verses of the Qur'an as for instance Surah 42:11 and thinks of them in terms of [mb] and [b] and not in terms of [AM] and [B]. Ibn 'Arabi critiques such Sufis: '*wa ma qadaru ilaha haqqa qadrahu* [and they did not estimate God as He should be (estimated)].'[28] I believe therefore that Ibn 'Arabi's comments on the verse above is therefore presented from the point of view of the lesser Sufis who do not realize their full potential.

The theologians and jurists, like the lesser Sufis, do not exercise their full cognitive potential. Religious knowledge is of two types based on the outcomes they realize. The first knowledge is of those who are concerned about proofs and evidence of the truth (*haqq*).[29] This sort of knowledge keeps them distant from perfect knowledge. They find some evidence and proof for a certain proposition and remain content with it, never seeking to transcend it. To them God is [AM] because He transcends them. They never imagine meeting [AM] and thus remain distant from Him. The other group of people is the Sufis who are always in search for the reality (*haqiqa*) behind the truth established by proof seeking. This group also consists of the lesser Sufis whose critique I have already outlined above. The greater Sufis are those who allow God to cause *kashf* (unveiling) of those hidden and transcendent aspects of God on their heart.[30] They are not repulsed by the bewildering awe inspired by [AM] and thus are able to go beyond traditional transcendental notions of God. In so doing they actualize the contrary affirmation to balance the first proposition as discussed above in the case of Surah 42:11.[31]

When one says, 'I am truly a believer' one is still at the first level of knowledge of the traditional believer. Beliefs arise out of proof based on the Qur'an and effect the first proposition. This level is perfected only when the *haqiqa* of beliefs is realized through the realization of the contrary proposition. Ibn 'Arabi gives a traditional support for his argument by quoting a tradition as follows. Harithah once said to the prophet, 'I am truly a believer.' The Prophet had to ask him, 'What is the reality (*haqiqa*) of your faith (*iman*)?' This was to make certain if his knowledge was based on proofs and

other's testimony or his own personal realization of *haqiqa* and the second contrary proposition. It seems clear that it is possible for the first level knowledge to be complete, but it becomes perfect only when the second level supports it. Thus when Harithah said that his knowledge was from *kashf* (unveiling) and *mushahada* (witnessing), the Prophet responded, 'You know, so remain committed.'[32]

These two levels are to be taken as ways of validating all divine knowledge. The second confirms the first and creates a need to acquire more knowledge. So knowledge of any divine object is incomplete till it is verified by both *haqq* (truth of the proof seekers) and *haqiqa* (the reality *haqq).* The majority of the traditional scholars do not 'estimate God as he should be' [i.e. his transcendent aspects] because they remain at the lower level of proof seeking for one particular level of God's attributes. Commenting on Surah 42:11, Ibn 'Arabi says, 'They do not value God at His true value,' thus suggesting that the *haqiqa* is a higher level of knowledge than the *haqq*.

Ibn 'Arabi seems to contradict himself when he say, 'Now Allah Most High has informed us that we are incapable of attaining the truth of His value (*haqiqa qadrihi*). How then should we reach the reality of His value ...? If we are incapable of that, how much more incapable must we be of the realization of His essence (*dhat*) ...'[33] A goal which was stated to be possible through *kashf* (unveiling or direct knowledge) and was demonstrated as an actual possibility in the case of Harithah is now stated as impossible. In the paragraph following the quotation above, Ibn 'Arabi seems to contradict himself by conceding again that people can witness (*mushahada*) the *haqiqa* through seeing AM. If however such a witnessing of the AM is possible, how does one explain the verse 'They do not value God at His true value?' It seems to me that according to Ibn 'Arabi, people stay at the level of the first proposition because they *fear* that the knowledge of God's true essence will destroy human individuality in the unity of the essence. What they do not understand is that this stage is only for the experience of unveiling and witnessing. If there is any residual knowledge, it is to be kept a secret or if that knowledge is verbalized, it should not be treated as if that is perfect or final. The Sufis are expected to go beyond such reduction and not commit the same mistake that the traditional scholars make by not going beyond the truth to the reality of the truth. Such an experience of AM is meant to help Sufis realize the limits of relational knowledge. AM impinges on individuality of the subject and like pain enables the subject to draw back into the soothing felicity of intimacy.[34] God does not wish to keep Himself from humanity. He

wishes people to know Him, but through allowing access into AM God enables humanity to realize that knowledge itself ceases beyond a certain point when individuality ceases. Thus AM also is an expression of His mercy in maintaining what He has created.[35]

I had observed earlier that Ibn 'Arabi's true focus is on the attributes of [AM] and [B]. The lesser Sufis' preoccupation with the lower levels of being and the traditional scholars' preoccupation with propositions without the contrary proposition, makes him digress from his actual focus on [AM] and [B]. One can say this provisionally that if man is capable of knowledge of all the attributes of God then conceptually one cannot deny that human knowledge of the highest of the attributes is possible. If [AM] is the highest of the attributes, it must be conceptually possible to hold that man can gain that knowledge also.[36]

V. POSSIBILITY OF RESIDUAL KNOWLEDGE OF ABSOLUTE MAJESTY [AM]

Ibn 'Arabi apparently rejects any suggestion that the knowledge of the level of being described by [AM] is possible: 'If we had a way to Absolute Majesty, we would have encompassing knowledge of God and of what He has and this is impossible.'[37] Ibn 'Arabi seems consistent in holding this opinion: '... if the knowers [Sufis] see the Majesty they experience awe and contraction.'[38] As pointed out, the witnessing of AM is conceptually possible. One's exposure to It leads to bewildering awe and conviction of distance and separation of humanity from Being. Thus, when Ibn 'Arabi says that experience of [AM] is impossible, he probably means that no one who has the experience of [AM] is also able to hold on to his individuality. That is when one encounters [AM] one loses oneself in the absolute unity and thus claims of relational experience of Being may not be entirely true. But if such 'exposures' to the [AM] are momentary, they might leave some residual impression on the Sufi. The *k. al-jalal wa-l-jamal* does not seem to have any evidence to substantiate this hypothesis. However, an inquiry of a couple of chapters from the *futuhat* will suggest that residual impressions of [AM] are possible.

In Chapter 73 of the *futuhat,* Ibn 'Arabi speaks of the two fundamental attributes of Majesty and Beauty. These according to him are His essential attributes. Majesty describes what God is, and Beauty is that aspect of God that relates to the entire Creation. The former denotes his essential being and the latter His relations. So far in his description of the two attributes, Ibn

'Arabi is consistent with what has been described above from the *k. al-jalal wa-l-jamal*. He contradicts himself, however, in the next section of the *futuhat*. He had spoken of awe and intimacy as the human characteristics corresponding to [AM] and [B]. He reverses this order to say that awe is a corresponding characteristic with [B] and intimacy with [AM]: 'Awe is the effect of Beauty, intimacy is an effect of Majesty. Thus Awe and Intimacy are two characteristics for the created and not for the Creator ...'[39] One possible way to understand this is to say that though Ibn 'Arabi attempts to give a description of Being through the notions of Majesty and Beauty such a distinction could not be absolutely watertight. It is not possible for him to be absolutely sure whether the correspondences he has worked out are absolutely fixed. All he could be sure about is that in his experience of God there are times when he feels awe and times when he feels intimacy; joy of relations he describes as love leading to knowledge and fear of *fanā'* (annihilation). He says, 'He does not fear (He does not have the attribute of awe) and He does not become intimate but an existent and there is no existent except God. So the effect is the love of the attribute and the attribute is not indifferent.'[40]

[B] then is not absolutely relational, likewise [AM] is not absolutely unifying. Thus though [B] may lead to knowledge, it may also lead to bewildering awe and eventual unicity. Likewise, [AM] may lead to awe-unicity, it may also lead to relational knowledge. That is to say that the knowledge of what is known as the essence is not impossible. It has been pointed out that the Qur'an does not contain in itself [AM], but rather [mb] and [b], which are the two levels within [B]. Thus, this passage in the *futuhat* seems to suggest that human knowledge can go beyond the Qur'an.

The notion of the residual knowledge seems to be supported by another passage on *wajd* (ecstasy). This passage is found in the *futuhat*.[41] Ibn 'Arabi begins with a very radical point about *wajd* and its effects: '*wajd* loses its conventional meaning (*hukm al-istilah*) when they [Sufis] speak of it [*wajd*] as a general [experience available to all].'[42] That is to say that the experience of ecstasy leading to knowledge is not just a privilege of a few but also a potential experience for all humans. That ecstasy (*wajd*) does not lead to anything other than *wujūd* (Being) is fundamental for Ibn 'Arabi: '... but the truth in *wajd*, is a Being (*wujud*) which the Sufis [come to] know.'[43] Though the rational philosophers and traditional doctors of religion do not take *wajd* seriously, the Sufis do not ignore anybody's experience. The Sufis believe

that anyone who experiences *wajd* brings back some residual knowledge from the object of his finding (*wujud*):

> So they [Sufis] accept whatever [residual knowledge] he [amateur seeker] brings back from his *wajd* while he engaged in the effort of finding (*wujud*). [The Sufis do this] even if the person of that *wajd* is not aware of the [relation between residual knowledge and] the being of the Truth. The Gnostic understands this and accepts what every person brings from his finding (*wujud*) even if the truth revealed in that *wajd* appears in a form, which the reporter [of experience] delimits it [in terms he understands it].[44]

Such reduction of initial experience of the object of finding seems inevitable if one wishes to understand the experience. The de-limitation of experience has value for the Sufis, because it catalyses further search for a contrary proposition. Thus necessitating developmental knowledge.

VI. CONCLUSION

I began by introducing the idea that mysticism in general makes a distinction between God-for-us and God-in-Himself. I indicated that in the Islamic mysticism of Ibn 'Arabi, SP and SB; B and AM respectively parallel God-for-us and God-in-Himself. I looked at one of Ibn 'Arabi's works called *k. al-jalal wa-l-jalal* with a view to finding out the extent of possible human knowledge of God according to Ibn 'Arabi and its relation to the Qur'an. I showed that a majority of the lesser Sufis never go beyond a certain level of knowledge because they do not understand the necessity of holding contraries in balance. The idea is simple. When one comes to have certain knowledge as a result of one's experience, one must attempt to seek a corresponding contrary to balance it. If one fails to do so, one remains at a lower level of knowledge. The Sufis, who allow the movement of contraries to continue, are able to rise to the highest possible knowledge of God. I further showed that humanity is comparable to the Qur'an in their ability to hold the contraries in balance. This suggests that the knowledge humanity finds independent of the Qur'an is of the same level as the Qur'an. It is notionally held that the two do not contradict.

I also discussed the possibility of human knowledge going beyond the Qur'an in Ibn 'Arabi. The premise was that if the Qur'an is a reduction of direct experience of God, it could not be assumed that the knowledge of God

contained in it is absolutely perfect. I concluded that while *k. al-jalal wa-l-jamal* does not clearly indicate this possibility, it might be held that Ibn 'Arabi's *futuhat* supports it.

Finally, let me add that an examination of the hermeneutical mechanism supporting this sort of linking of human knowledge with the Qur'an needs to be undertaken. There is also a need to discuss the possible motives behind the need to traditionalize experiential inputs. I think part of the reason why 'traditionalization' of the radical experiential inputs was felt necessary was in order to remain within the traditional environment. But this remains to be shown.

NOTES

1. See Ibid., pp. 1–13 for the use of this term.
2. Michael Sells, *Mystical Language of Unsaying*, (Chicago and London: The University of Chicago Press, 1994).
3. Ibn 'Arabi (1165–1242 CE) is known among the Sufis as 'the greatest Shaykh'. The details of his life, work, influences and his impact on Islamic mysticism may be gathered from Claude Addas, *Quest for Red Sulphur*, (Cambridge: Islamic Text Society, 1993). For his influence in the subcontinent see W.C. Chittick, 'Notes on Ibn 'Arabi's Influence in the Subcontinent' in *The Muslim World*, LXXXII, nos. 3–4, July–October, 1992, pp. 218–241.
4. See for instance Ibn 'Arabi, *Tarjuman al-ashwaq*, ed. R.A. Nicholson, V:1, p. 58; XXIX:14, p. 107; XIV: 1–2, pp. 74.
5. Ibn 'Arabi, *Futuhat al-makkiyah*, (Cairo: 1274 H; 1293 H; 1329 H) 4 vols. (henceforth cited as *futuhat)*. See Vol. II, p. 426. See Chittick's translation of the *futuhat* II 426–27: 'A clarification (*ifsah*) of the entire affair's situation (*bi ma huwa 'l-amr 'alayh*) section eleven,' in *Les illuminations de la mecque: The eccan Illuminations. Texts choicis*/selected texts; *sous la direction de* M. Chokiewicz, *avec la collaboration de* W. C. Chittick *et. al.* (Paris: Islam/ Sindbad, 1988), (henceforth cited as *Les Illuminations*), pp. 100.
6. The term *mahd* contains in it the idea of 'cradle' to suggest an early stage of infancy. When used in it philosophical sense, it is better to translateit as 'primordial' to suggest an early or pre-existent states of being.
7. See *futuhat* II, p. 426. '... know that the matter (entire affair) is the Truth and Creation and it is sheer existence/being-was still and still is and sheer Possibility.. and sheer absence/non-existence.'
8. This paper analyses Ibn 'Arab's book, *Kitab al-jalal wa-l jamal,* (The Book of Majesty and Beauty) in *Rasa'il Ibn 'Arabi,* vol. I, (Hyderabad-Deccan: The Dairatu'l-Ma 'arifi'l-Osmania, 1948), (henceforth cited as *K. al-jalal-rasa'il*) to explore the possibility and extent of human knowledge according to the Shaykh. I have used the text, which is part of 17 tracts of Ibn 'Arabi put together in the volume published in Hyderabad (1948) [David Emmanuel Singh, *The Possibility of Having Knowledge of al-wajud al-mahd 'sheer being' According to Ibn 'Arabi's kitab al-jalal wa-al-jamal* in *Islam and Muslim Christian* Relations, vol. 10, no.3, 1999, pp. 295–306]. A complete translation of this treatise is also founhd in translation of this treatise is also found in translation by R.T. Harris in *JMIAS*, vol. VIII, 1989, pp. 5–32. (henceforth cited as *K. al-jalal-JMIAS*). M. Notcutt's 'Ibn 'Arabi: A Handlist of Printed Materials: Part I' in *JMIAS*, vol. III, 1984, pp. 55–64, lists the Hyderabad (1948) text of the treatise on p. 59.
9. Ibn 'Arabi's approach is very gentle. For instance, he draws young Sufis' attention to the error of some senior Sufis who according to him misunderstand thenotions of Majesty and Beauty. The didactic function of the treatise is evident from the expressions like, 'And Know, Brother...'; 'So Know'; 'Attention (or "advice" in R.T. Harris' translation) Know, brother...'; 'And you should be aware of [or in R.T. Harris' translation- "It is necessary for you to be mindful of..."]'; 'If you recite it in this way you will come know its secrets...' See *K. al-jalal-rasa'il* vol. I, p. 17; *K. al-jalal-JMIAS.* See pp. 10, 14, 28, 29.
10. Ibn 'Arabi says, 'The matter of *jalal* and *jamal,* the Divine Majesty and the Divine Beauty, has attracted the attention of the witnesses of truth, the Knowers of Allah among the Sufis. Each of them has spoken of these two as was appropriate to his state. Most, however, have connected the condition of intimacy with Beauty and the condition of awe with Majesty, and things are not as theyhave said.' Ibid., p. 6.
11. 'It is too great to be comprehended by intellectual reflection, by the spiritual practices of the masters of illumination, by knowers' secrets, by the majestic range of leaders' vision—for it is too great to be confined behind veils and curtains...' *K. al-jalal-JMIAS,* p. 6. The treatise does not seem to deny that it may be witnessed if not fully comprehended with out human effort. 'Its own light' may thus witness the essence i.e. not involving any human effort.
12. See *K. al-jalal-Rasa'il*, vol. II, p. 3 ff.
13. Awe and intimacy correspond with the divine attributes of Majesty and Beauty.
14. *K. al-jalal-Rasa'il*, vol. II, p. 3 ff.
15. Ibn 'Arabi, *fusus al-hikam, - kunuj asrar al-kidam*; Intro. *mufid al 'alam*; commenatary on the margin *khajain asrar al-kalim*; by Shah Muhammad Mubarak al-'Ali, edited by Maulana Muhammad 'Abd al-Ghaffar Lucknawi, under the supervision of Muhammad 'Abd al-Samad, (Kanpur: al-Matba' al-Ahmadi 1311 AH), p. 146.
16. Ibn 'Arabi, *al-istilah al-sufiyah* in *rasa'il*, vol. II, (henceforth cited as *al-istilah*) p. 5 'See also Ibn 'Arabi, 'Sufi Terminology: Ibn 'Arabi's *al-istilah al-sufiyah*' trans. R.T. Harris, in *JMIAS*, vol. III, 1984, pp. 27–54. (Henceforth cited as *al-sufiyah.*) R. T. Harris is not consistent with her translation of *qabd* and *bast*. Harris translates these as 'diminution' and 'elation' respectively in *k. al-jalal wa-l-jamal* and in *al-sufiyah* as 'constriction' and 'expansion' respectively. It is the sense of 'contraction' and 'expansion' that Austin brings out in his trans-

lation of *qabd* and *bast* in Ibn 'Arabi, *Sufis of Andalusia*, partial translation of *ruh al-quds*, London: George Allen and Unwin, 1979), pp. 102 and 88. The other editions of *al-istilah* which were not consulted are Cairo, 1283 H, Istanbul, 1307 H, *istilah al-shaykh muhyid-din al-'Arabi,* ed. G. Flugel, Leipzig, 1845, and 'La terminologie mystique des Ibn 'Arabi', trans. A. Regnier, *La museon, revue d'etudes orientales*, 48, 1935, pp. 145–62).

17. Ibid., p. 5.
18. See *al-istilah* p.3 for Ibn 'Arabi's own meaning of this term. A state of the heart arrived at without effort.
19. When Gabriel blew into Mary the breath, her 'breast expanded' just as Muhammad's breast expanded in order to receive the revelation. See Ibn 'Arabi, *Bezels*, p. 189 and n. 26. See also Surah 94:1
20. See Ibn 'Arabi, 'The Book of *alif* (or) The Book of Unity' trans. Abraham Abidi, in *JMIAS*, vol. II, 1984, pp. 15–40.
21. *Futuhat* II, Chapter 73, p.104 ff. See also *futuhat*, I, pp. 126–7.
22. The following quote is from R. T. Harris' translation *K. al-jalal-JMIAS*, p. 8. Ibn 'Arabi says, 'For example, whenever there is a verse in the Qur'an that speaks of mercy, it has a sister that speaks of retribution to balance it. Thus His calling Himself "Forgiver of sins, Acceptor of repentance" is countered by His calling Himself "Terrible in retribution".' This is Ibn 'Arabi's quotes from the Qur'an (*Mu'min* 3). The other verses quoted in this context are *al-Hijr* 49–50; *al-Waqi'a* 27–8, 41–2; *al-Qiyama* 22, 24; *al-'Imran* 106; *al-Ghashiya* 2–3, 8–9; *al-Isra'il* 20; *al-Shams* 8; al-*Lail* 7, 10.
23. *K. al-jalal-Rasa'il*, vol. II, p. 5.
24. Ibid. See for Hadith sources *K. al-jalal*, *JMIAS*, p. 30, n. 3.
25. The term used by Ibn 'Arabi are *m'aqul* and *lughawi*. R. T. Harris translates the former as 'literal' and the latter as 'figurative.' Actually the former comes from '*aql*' which involves reason or mental process and hence more accurately rendered as reasonable or rational and the latter literally means linguistic or philological. However, in the latter case the term figurative seems to convey the real sense. See *Arabic–English Dictionary: The Hans Wehr Dictionary of Modern Written Arabic*, ed. J. M. Cowen, New York: Spoken Language Service, 1976), (henceforth cited as *Arabic–English Dictionary*), p. 871.
26. Literally 'so human reality is not where' i.e., human beings are unlike all creation which accept their state as given and stay true to the circumstances of that state. Humanity grows in internalizing knowledge till they find perfection. See *K. al-jalal-Rasa'il*, vol. II, p. 6.
27. See *K. al-jalal-JMIAS*, p. 12.
28. From Surah *Zumar* 67; *An'am* 91; *Hajj* 74. *K. al-jalal-Rasa'il*, vol. II, p. 25.
29. R. T. Harris translates it: 'Truth known with the intellectual powers as a guide.' This translation does bring out Ibn 'Arabi's point of critique of the people of the law, and theology who base the certainty of their way on proofs. The word used is *madarik*, which means mental faculties, mental power, perception, or intellectual powers aiding reasonable proofs. See *Arabic–English Dictionary*, p. 279 and *K. al-jalal-JMIAS*, p. 25.
30. R.T. Harris translates *kashf* as direct perception but the student prefers Chittick's translation 'unveiling' which correctly does not contain the idea of human effort. The knowledge of *haqiqa* thus makes its appearance. Her translation of *mushahadah* seems right in that this expresses the idea of human response to what appear through unveiling that is seeing vision with a view to inspecting. See *Arabic–English Dictionary*, p. 489 and *K. al-jalal-JMIAS*, p. 25.
31. See *al-sufiyyah*, p. 35 for Ibn 'Arabi's own explanation of the term *haqiqa*.
32. R. T. Harris translates it as 'You have realized; now persevere!' See *K. al-jalal-JMIAS*, p. 25.
33. Ibid.
34. Ibid., p. 26. Ibn 'Arabi says, 'So when they have confirmed that through the expansiveness of this station, the Majesty of: *They do not value Allah at His true value* contracts them and draws them back.'
35. Ibid. 'If you wish to know the limits of the realization ... then look at what He has created for you and placed under your authority, and find within yourself in what way you want what has been created for your sake to know you. Truth wants you to know Him ...'
36. Ibn 'Arabi is referring to the Qur'anic account of Adam knowing all the names and is showing that human capacity for the perfect knowledge of the entire affair which justifies their right of stewardship over all creation.
37. Ibid., pp. 3–4.
38. Ibid.
39. *Futuhat* II, Chapter 73, p. 114.
40. Ibid.
41. *Futuhat*, II, 538. Chittick's rendering of the phrase *hukm al-istilah* as a 'technical term' seems misleading [see SPK, pp. 212–13]. Chittick seems to be conveying that the *wajd* is not a technical term for it is used also as a non-technical word by the Gnostics. His translation makes it seem as though Ibn 'Arabi was speaking about the usage of the terms among the terms in relation to Sufism in general. The point of the passage, however, seems to be to say that though the term *wajd* is used to refer to a specific condition of experience conventionally within Sufism, the Gnostics do not limit its experience among the Sufis. They are able to discern the occurrence of *wajd* in a variety of manifestations—sometimes even through the traditional and rational delimitation.
42. Ibid.
43. Ibid.
44. Ibid.

The Phenomenology of Meaning: Diṅnāga to Ratnakīrti

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The entire Buddhism, irrespective of various schools and sub-schools and internal doctrinal disputes, prominently analyzes and highlights the subjective nature and creative function of consciousness in our day-to-day experiences as well as trance experiences of the seers. The later Buddhists like Dharmottara also maintain that our empirical perceptions are inferences, the structure of whose contents are constituted in and constituted by our consciousness which is eventual, temporally fluxional, and intentional. The referential theory of meaning makes sense only in respect of its internal structures, whereas in respect of an external object it is only sense-constitutive and not structure-grasping. These are extremely important phenomenological facts which are realized and worked out in different ways by the Mahāyānists like the Mādhyamikas and the Yogācāra-Vijñānavādins, besides the Theravādins. In this essay, I concentrate on the works of the later Buddhist thinkers like Vasubandhu, Diṅnāga, Dharmakīrti, Śāntarakṣita, Kamalaśīla, Jñānaśrī, and Ratnakīrti, who represent a long philosophical tradition of Sarvāstivāda (Vaibhāṣika)-Sautrāntika-Yogācāra-Vijñānavāda, and their views in the fields of ontology, epistemology, and philosophy of language. This tradition has developed in continuous interactions with the non-Buddhist thinkers like Bhartṛhari, Uddyotakara, Kumārila, and Vācaspati. On the Buddhist side, Ratnakīrti is the last serious thinker who has been severely criticized by the great Naiyāyika Udayana who in the absence of any Buddhist reply remains unchallenged. Here I am concerned with the above Buddhist thinkers only.

The most remarkable thing I find in my investigation is that these Buddhists philosophers, who fall between AD 400 and 900, fondly and vigorously pursue a phenomenological approach while dealing with the issues related to ontology, metaphysics, epistemology, and philosophy of language. I do not intend to discuss the western concept of phenomenology in comparison to Mahāyāna philosophy, but to present an analysis of the meaning-issues

discussed in their works which clearly show the phenomenological method and spirit in their method of philosophizing.

The general characteristic of the Buddhist thinking is to know the nature of consciousness, the mechanism of mind and ego, and the vibrations of consciousness and thus created concomitants considered to be the real constituents of one's internal world mistakenly taken as the representation of the external world out there. According to it, our ignorance, which involves cognitive incapacity because our cognitive constitution is so, about these facts generates a false belief in the reality of the external world of the so-called objective things. The Buddhists maintain that our whole day-to-day behaviour and also philosophical thinking about the nature of reality, knowledge, language, morality, etc. are determined by the fundamental failure of not realizing the subjectocentricity and creativity of mind, which are the empirical consciousness, whereas the realization of these facts causes a radical transformation in the whole human thinking and behaviour. This simple, although of primary importance, phenomenological fact becomes the guiding principle of Buddhism in all matters of its thinking and practice. The empirical world is not outrightly denied but given a derivative ontological status by it. The realization of the nature of fluxional reality and consciousness, the fundamental ignorance and subjectocentricity involved in our knowledge-claims, and the complex process of knowing, certainly shatters the conventional belief in the empirical world. The language which claims to picture or mirror the structure of reality on the basis of empirical knowledge structured in the faulty cognitive constitution proves to be vacuous in content as the claimed knowledge-structure itself is based on the erroneous assumption that 'the reality manifests its own structure which is simply grasped by the mind and the pattern in the language-structure is simply a verbal manifestation of this knowledge-structure.' The traditional bond of reality, knowledge, and language is fractured and reduced to nought by the Mahāyāna Buddhists. This creates for them a new atmosphere suitable for creating a new world-view and a corresponding way of life.

In the whole development of Buddhism, there is one school of thought, namely Sarvāstivāda-Vaibhāṣika, which under the pressure and influence of the realists, tried to speak the latter's language, but soon they were challenged and corrected by the Sautrāntikas, Mādhyamikas, and the Yogācāra-Vijñānavādins.

It is an undeniable fact that the Buddhist analysis of mind and its concomitants had a tremendous impact on the development of philosophy in India. This analysis, in the process, demolished many unrestricted metaphysical constructions, beliefs, and myths. The Buddhists did so in order to prepare a background for cultivating and promoting a universal culture. The issues of meaning under consideration are not, in Buddhism, a part of the 'given' external world. They are significant, relevant, and applicable only in the realm of internal world. The question of 'given' itself is controversial. Buddhism does not harp on philosophizing with the 'given', as taken in everyday transactions, as its unexamined presuppositions. The 'given' as given in our day-to-day cognitive experience is analyzed by it and then assigned meaning on the basis of the subsequent reflective experiences. This exercise is always carefully monitored so that it does not end in pure rationality which, unlike in the west, has to be transcended at one stage to see the social relevance or application of philosophy as cultural activity. And this is technically called *darśana* which is invariably human as well as cosmic in approach, whereas 'philosophy' (the modern term for *darśana*) in the west has now become purely an intellectual exercise or game. In India, even 'logic' is tied with ontology.

In Buddhism, there is a persistent and consistent attempt to go beyond the empirical or superficial realm to look for the universal principle which helps promote the universal practice of virtues. Rationality prepares the initial ground for such an endeavour. It is allowed to work only at the empirical level which is the level of the interplay of empty concepts and judgements which in turn become the material for further discursive thinking. To go beyond that for any rational construction is a socially irrelevant and purposeless, rather misleading and suffering-generating, enterprise for the Buddhists. The greatest drawback with rationality is that it can prove true any statement, howsoever false or meaningless. It is also seen that in many cases rationality becomes a tool created by already established beliefs to serve their own purpose of reaffirming themselves. Also, rationality has no commonly accepted universal form, content, method, and direction. It knows no limits. Its unrestricted application smashes the humane face of philosophy and blocks every attempt at transforming philosophy into universal cultural activity which is a cherished goal of every Indian philosophical thinker.

Further, the Buddhists think that the analysis of the mechanism of mind helps arrest its unrestricted and imaginative flights. This brings radical changes in meaning, motivation, and human action. The whole process, in causal sequence, may be illustrated as follows:

Analysis of the functioning of mind ⟶ arrest of unrestricted fictional constructions by mind ⟶ change in meaning ⟶ change in the attitude of a person ⟶ change in his motivation ⟶ change in his mental, physical, and linguistic activities thus promoting a social culture of transcending selfish good to universal good.

In this manner, the Buddhists try to seek the solutions of human problems within the framework of mind and body. This is, according to them, the most formidable task for humanity to accomplish.

THE BUDDHIST ASSUMPTIONS AND THESES

To substantiate what I have stated above, I have selected a few passages randomly from various Buddhist sources, except the Mādhyamika which I have discussed elsewhere, and have treated them as Buddhist assumptions/presuppositions/theses. I have analyzed them in brief in order to see their implications for ontology, epistemology, and philosophy of language.

(1) *Cattāri ariyasaccāni.*[1]
There are Four Noble Truths.

In early Buddhism, these truths are considered absolute, i.e. they are so obvious and ubiquitous that they cannot be doubted or questioned. They are actually starting-points of Buddhism as they were revealed in the Buddha's enlightenment. In Buddhism, their intepretations have resulted in various theories of reality, knowledge, meaning, and morality. Primarily these four truths are the expressions of the four most fundamental, self-evident, and universal facts of the living world. They are the facts of disquietude (*duḥkha*), its conditioned origination (*samudaya*), the possibility of elimination of its causes (*nirodha*), and the ways of its eradication (*mārga*). In Buddhist thinking, the unpleasant experience of the first truth causes commotion in one's mind and subsequently necessitates serious reflection on the nature of disquietude, etc. The search by the Buddhists for its causes and ways of eliminating them is carried out most resolutely, vigorously, and rationally. The Buddhist philosophy, like any other *darśana* except the materialists, starts with this negative task first. This clears the ground for achieving lasting peace and happiness, which become the crucial factors for arousing motivation in a person to perform action, an action which may further be intended to be serving humanity and other beings at trans-cultural and geographical level. A *darśana* like Buddhism has its end in such achievements.

This kind of activity is carried out through inculcation of universal values, and cultivation and promotion of universal social virtues like benevolence (*maitrī*), compassion (*karuṇā*), sympathetic joy (*muditā*), and equanimity (*upekṣā*). The ultimate aim of the Buddhist philosophy or way of life is to make the world an abode of peaceful and blissful living.

Thus the realization of the Four Noble Truths becomes the womb of all kinds of virtues. Further, in the process of their interpretation, the meaning of reality, knowledge, truth, morality, and linguistic meaning in general change radically. They become more (or even most) comprehensive in scope and application, and the meanings of linguistic terms and propositions used in our everyday transactions are shown to be either empty in content in the ultimate sense or narrow in their approach and application. For a Buddhist, the real crisis is: How to achieve in our behaviour the universal, unrestricted, and unconditional practice of virtues mentioned above. They overcome this crisis by assigning a new meaning, a meaning which is both human and cosmic in connotation, to our day-to-day behaviour—mental, linguistic, and physical. The eightfold path (*aṣṭāṅgamārga*)[2] suggested by the Buddhists encompasses every good behaviour. They are: right view (*sammā diṭṭhi*), right thought (*sammā saṅkappa*), right speech (*sammā vācā*), right action (*sammā kammanta*), right living (*sammā ājīva*), right effort (*sammā vāyāma*), right mindfulness (*sammā sati*), and right concentration (*sammā samādhi*).

(2) The Buddhists maintain the three essential characteristics of our empirical world which has its conditioned origination (*pratītyasamutpanna*). They are: (a) impermanence (*anityatā*), (b) non-substantiality or selflessness (*anātmatā*), and (c) disquietude (*duḥkhatā*). These are based on the simple observation of the phenomenal changes. The Buddhists are enlightened by the universality of these facts. Their whole endeavour is directed towards achieving their opposites. Lasting quietude or happiness (*nirvāṇa, sukha*) is what they are striving for. In early Buddhism, the whole attempt of an aspirant was motivated by his own good, but in later Buddhism we find that this entire effort was directed towards doing good to others. The meaning of 'happiness' changed from selfish or private good to public or universal good, so much so that doing good to others was equated with happiness:

sukhārthaṃ kriyate karma tathāpi syān na vā sukham/ karmaiva tu sukhaṃ yasya niṣkarmā sa sukhī katham//[3]

> Man strives to seek worldly pleasures which may, even then, elude him. But for a [Buddhist-like] person action itself is bliss [because it is motivated to do good to others]. [On the contrary] how can the inactive ever be happy?

This kind of thought and action generate the hope of getting lasting happiness in future too. This further provides an unfettered sense of security for future life and happiness in it, and at the same time it makes such actions of a person socially relevant. Buddhism thus aims at bringing in qualitative change of higher order of happiness in human life. Its definitions of peace and happiness are non-conventional and guided by ethical considerations.

The Buddhists take all kinds of formations (*saṃskāra*) as ultimately impermanent, which by nature cannot provide permanent peace and happiness. With such formations, they think, are related the selfish attitude and other mental and linguistic activities whose dissolution (*upaśama*) is the cause of lasting peace and happiness (*sukha*).[4] On the other hand, one is advised by them not to fall prey to 'what is impermanent, that is not worth delighting in, not worth being impressed by, not worth clinging to.'[5]

The concept of disquietude (*duḥkha*) has a very crucial role to play in shaping Buddhist philosophy, religion, and culture. The First Noble Truth, which is the statement of the universality of disquietude, sees ultimate disquietude in each and everything of the ego-and-passion-created empirical world which provides only a temporary experience of pleasure. In such pleasures, sensuous elements are dominants and reflective tendency is either absent or at its lowest level. With the former, one tends to be more and more selfish. Such attitude ultimately leads to unsatisfactoriness and displeasure, whereas the latter bears the opposite fruits even if one shares the sufferings of others, because it transcends selfish attitude. A person with reflective tendency is more sensitive towards others' suffering and does not even least care for his own. These two tendencies represent two different values: selfish value and altruistic value. The realization of disquietude (*duḥkha*) at selfish level disillusions a person who is then a totally transformed personality. He gradually gets rid of the desire of possessiveness, feels concerned for others, and is motivated to do good to others—not only human beings but other beings like animals, plants, and whatever is in the environment as well. He finds the manifest expression of meaning of his life in such acts. He thus becomes a true saviour of all kinds of beings.

The Buddhists purposefully and forcefully deny the existence of any permanent substantial soul as an active agent of an individual's behaviour and

substratum of all psychological properties. Their non-soul theory (*anātmatā*) was a direct outcome of the above two theses of impermanence (*anityatā*) and disquietude (*duḥkhatā*). The mentality behind the linguistic usage of 'I' and 'mine' which are the products of unreflective and underdeveloped mind, is the root cause of all evils. This way of thinking in Buddhism has a direct bearing on the nature of meaning.

The above discussed three theses[6] about the nature of the phenomenal things together constitute the essence of Buddhism, which having been loaded and preoccupied with ethical concern, brings forth a divorce of meaning from reality which is constantly subjected to distorted and manipulated description and apprehension.

The *Saṃyutta-nikāya* (IV.172ff)[7] enumerates four instinctive factors which every human being nourishes in his life. They are: 'desire to live' (*jīvitukāma*), 'desire to be free from the clutches of death' (*amaritukāma*), 'craving for pleasure' (*sukhakāma*), and 'disgust from disquietude' (*duḥkhapaṭikkula*). A belief in a permanent substantial 'self' then becomes a logical necessity. The Buddhists think that accomplishment of traditional human values and excellence in the practice of moral virtues can be achieved quite safely and rationally on 'no-self' line. The belief in a permanent, immutable, eternal, and unchanging self[8] can be analyzed into five basic factors which together constitute the human personality. These factors are: form (*rūpa*), feelings (*vedanā*), perceptions (*saññā*), dispositions (*saṃkhāra*), and consciousnesses (*viññāṇa*). The *Milindapañha*[9] denies any relation of correspondence between proper name and human personality. The Buddhists themselves participate in everyday transactions, but they warn that any linguistic term connoting 'self' must be taken only as a conventional name (*lokasamañña*), conventional way of speaking (*lokanirutti*) and designating (*lokavohāra*), and conventionally formed concept (*lokapaññatti*).[10]

(3) *na h'eva saccāni bahūni nānā, aññatra saññāya niccāni loke/ takkañ ca diṭṭhisu pakappayitvā, saccaṃ musā ti dvayadhammam āhu//*[11]

> Apart from sense data, no diverse and eternal truths exist in this world. Having organized one's reasoning with regard to metaphysical assumption, the sophist spoke of two things: truth and falsehood.[12]

The Buddhists are the upholders of the event theory of reality. The word 'dhamma' (Skt. *dharma*) is used for such reality which exclusively possesses objective truth value. According to them, sense data are the basic elements

out of which mind forms various concepts and judgements. These elements (*dharma*) get their meaning or value only by mind.

(4) *manopubbaṅgamā dhammā manoseṭṭhā manomayā.*[13]

Dhammas are preceded by mind, controlled by mind, and created by mind (i.e. they are of the nature of mind, not non-mental realities).

(5) *attano pana sabhāvaṃ dhārenti ti dhammā. dhāriyanti vā paccayehi dhārayanti vā yathāsabhāvato.*[14]

Dhammas may be defined as those states which bear their own intrinsic nature, or which are borne by cause-in-relation, or which are borne according to their own characteristics.[15]

Dharmas, according to Buddhism, are the ultimate reals and those fundamental facts which are in direct opposition to the objects of our everyday transactions. They are defined as: '(i) multiple, (ii) momentary, (iii) impersonal, (iv) mutually conditioned events.'[16]

(6) *rāśyāyadvāragotrārthāḥ skandhāyatanadhātavaḥ.*[17]

skandha, āyatana, and *dhātu* signify bundles of elements, sense-fields, and constituents of phenomena respectively.

The Buddhists have devised three ways of classifying the phenomenal elements (*dharma*), which show their total commitment to phenomenologism. The bundle (*skandha*) of material form (*rūpa*), feelings (*vedanā*), perceptions (*saññā*), dispositions or impulses (*saṃkhāra*) and consciousnesses (*viññāṇa*) is what is called human personality,[18] a psycho-physical organism. Reduction of human personality to a bundle of these fundamental elements is aimed at shattering the belief in permanent substantial 'soul' which is the object of 'I-consciousness'.[19] To illustrate this, the stock example of chariot (*ratha*) is given:

yathā hi aṅgasambhāra hoti saddo ratho iti,
evaṃ khandhesu santesu hoti satto ti sammuti.[20]

For, just as when the parts are rightly set,
The word 'chariot' ariseth [in our minds],
So doth our usage convenant to say:
'A being' when the aggregates are there.[21]

The bundle theory of 'self' or 'soul' thus deconstructs the meaning of any permanent substantial entity and shows its emptiness in content.

The second of the groupings of the dharmas, in Buddhism, consists of the six organs and their objects. This is to explain the activity of mind and its concomitants,[22] such as the concept-forming, form-creating, and symbolizing activities of mind. Any meaningful discourse at conventional level is impossible without taking them into consideration. The Buddhists do admit in a conventional sense that six sense-organs and their objects are 'given', but the resultant thought arising from their contacts, according to them, is not the property of any permanent immutable substance like 'soul'.

The third way of classifying the dharmas is to put them in three groups: six sense-organs, their six respective objects, and the resulting six consciousnesses. These eighteen elements are the most fundamental factors which are at the base of all kinds of phenomenal constructions through their various permutations and combinations. This involves the whole process of knowing, judging, and languaging. Through this analysis the Buddhists again try to make us realize that mind's subjectivity and creativity inescapably and invariably shape the phenomenal reality like chair, and its knowledge, meaning, and descriptions.

Now in the following pages I intend to discuss some of those issues whose treatment will throw light on the Buddhist theory of meaning in the Sarvāstivāda (Vaibhāṣika)-Sautrāntika-Vasubandhu-Diṅnāga-Dharmakīrti-Śāntarakṣita-Jñānaśrī-Ratnakīrti tradition. The preceding discussion of the Buddhist assumptions and theses will always remain in the background while dwelling upon these issues.

NATURE OF REALITY AND CRITERIA OF ONTOLOGICAL COMMITMENT

The Buddhist thesis of impermanence is propounded following the observation of the fact of change occurring everywhere and everytime in the world. The subsequent analysis of change reduces the reality to mere event, an instant in duration. This raises various ontological, epistemological, semantic, and ethical issues. The most formidable problem in this context has been the problem of explaining the continuity. The Buddhists solved this problem ingeniously by analyzing the process of knowing and the constitutive nature of consciousness. Moreover, for them, events remain the fundamental and irreducible realities. The continuants are derived from them and are complex in the sense that although they appear to persist in time, they are not actually

so because they are reducible to discrete events that are somehow interrelated temporally and conceptually. It is epistemologically impossible to transcend these basics. In the empirical world, the aggregate of certain continuants create the appearance of another unitary continuant, like 'chariot'—which is an aggregate of various parts, such as wheels, chair, umbrella, and horse—is designated by one linguistic term 'chariot'. Human personality, in Buddhism, is explained on the same pattern. It is technically called *skandha*, a bundle, of different factors like form, feelings, perceptions, dispositions, and consciousnesses which are in themselves different series of events and continuants in their own right. They may be considered first order continuants. A chariot is another kind of continuant, rather a second order continuant, an aggregate of first order continuants, although both kinds of continuants are constituted in and constituted by empirical consciousness, i.e. mind. The Buddhists subscribe to these kinds of reality only, but at different levels. But any further construction like transcendent reality, say, Brahman of the Vedāntins, or God, or any universal property as an ontological category is a purely mental concept. Universal as purely mental concept has at least a function in our knowledge, thought, language, and action. It facilitates our everyday transactions, but God does not enjoy even that status, and a transcendent reality at most can be accepted only as a logical possibility for argument's sake. In the Buddhist framework, 'universal', 'God', and 'the transcendent reality' lack 'being-with-existence' (*sattā*) in the way events and continuants possess it.

In philosophical analysis, events are the only cognitive and ultimately irreducible contents, and in themselves beyond reference (*anirdeśya*), unthinkable (*acintya*), and inexpressible (*anabhilāpya*). Language, sense, reference, meaning, and significance, and other semantic notions are intelligible and have their application only in the realm of continuants and universals which are not fundamentally 'given'. This means language, meaning, etc. are cognitively vacuous and empty in content in the ultimate sense. True predication at the level of 'given' is impossible. Predication is possible only in the case of continuants, and that too is only conventional. This thesis has its implications on subject–predicate, universal–particular, and word–object relationships. Therefore, we cannot ontologically commit to continuants, not to talk of universals. In order to avoid any such commitment, the Buddhists have devised the double negation theory of meaning (*apohavāda*) which denies any correspondence relation between language and ultimate

reality, or universal as a reality and language. This theory will gradually unfold itself in the following pages.

In Buddhism, every manner of speaking does not have its application in the conext of our everyday world which consists of the continuants derived from events. The Buddhist ontology contains sometimes two levels and sometimes three levels of 'being-with-existence' (*sattā*), the most fundamental of which are events. Entities like tree, chair, cow, and man have derived ontological status and are preception-based structures by mind. Our conception of the world is not objective in the realist sense. It can never be. The subjective elements are innate in all our understanding, knowledge, thinking, and description. Any world-view has to be inescapably egocentric (cf. *ahaṃkārodbhavāḥ skandhāḥ*).[23] The Buddhist criteria of ontological commitment are twofold: one, to the being which is endowed with causal efficiency (*arthakriyāsāmarthya*). This is the exclusive characteristic of the fundamental reality, viz. event. Second, to the being which is derived from such events and accepted in the conventional realm, viz. chair, tree, etc. We can equate 'being' with 'existence' in all those cases whose truth-condition is causal efficiency as in the case of a fundamental reality like fire which radiates heat. In the case of derived ones, 'being' can be equated with 'what is workable or has pragmatic value', for example, 'chariot' which is used as a means of transport.

TO BE IS TO BE CAUSAL AND WORKABLE

The Buddhist approach to an issue is that one should not be purely speculative and take conceptual flight arbitrarily while constructing a philosophic theory. Their construction is always grounded in the fundamental realities which are existent through their causal efficiency and always prove their workability in the spatio-temporal-causal system. A long passage from Ranakīrti summarizes what the Buddhists of the Yogācāra-Vijñānavāda school say about the nature of reality:

yadi nāma darśane darśane nānāprakāraṃ sattvalakṣaṇam uktam āste, arthakriyākāritvam, sattvāsamavāyaḥ, svarūpasattvam, utpādavyayadhrauvyayogitvam, pramāṇaviṣayatvam, tad upalambhaka-pramāṇagocaratvam, vyapadeśaviṣayatvam tad upalambhaka-pramāṇagocaratvam, vyapadeśaviṣayatvam ity ādi, tathāpi kiṁ anenāprastutenedānīm eva niṣṭaṅkitena. yad eva hi pramāṇato nirūpyamāṇaṃ padārthānāṃ sattvam upapannaṃ bhaviṣyati tad eva vayam api

svīkariṣyāmaḥ. kevalaṃ tad etad arthakriyākāritvaṃ sarvajanaprasiddham aste tad khalv atra sattvaśabdenābhisandhāya sādhanatvenopāttam.[24]

> That 'being' which is 'existence' is [a] momentary [event], just as a pot [which is a series of such events]. Although 'being as existence' is differently defined by different schools of philosophy: (1) as possessing the characteristic of causal efficiency, (2) as that which is inherent as essence [in the instances or particulars], (3) as that which exists by itself, (4) as that which underlies origination, decay, and destruction, (5) as the knowledge-instrument, (6) as that which is grasped as the object of knowledge-instrument, (7) as that which is the object of definite description, etc., yet what is the use of such a definition which is irrelevant and formulated arbitrarily. On our part, we accept the designation of word as 'being with existence' only when it is established by knowledge-instrument. Only such 'being' which is capable of causal efficiency is recognized by common people. That alone can be designated by the word 'existence' and can stand logical arguments.

It was Dharmakīrti who first coined the word *arthakrīyā*. This is considered as the differentia of knowledge and truth. He defines knowledge as that which is not in disagreement with purposive action.[25] Any knowledge to be true, says he, must lead to the accomplishment of human interest (*puruṣārthasiddhi*).[26] Take for example, cognition of fire. This cognition will be true when it is useful for cooking, heating, burning, etc.[27] If it fails to conform to its causal efficiency, the cognition of fire will be erroneous. Accomplishment of human interest is based on the existence (*sat*) and causal power (*arthakriyā*) or workability (*vyavahāra*) of the intended object of knowledge or the designation of a word. This is what is the essential nature of 'being-with-existence'.[28] Any other being which is talked about but fails in its application for purposive actions must be inexistent and a purely mental construction. What I see in this definition of reality is that it further strengthens the Buddhist theory of fundamental reality as 'event'. The manifestation of the causal potency of a reality, like fire used in cooking and burning, is a series of events, which when mentally constructed as a continuant, becomes the designatum of the word (*padārtha*) 'fire'. Hence ontological, epistemological, logical, and linguistic meanings of a term are understandable in true sense only in the context of causal efficiency of a reality or its usefulness in accomplishing some or the other human interest. They are thus the truth-conditions of a proposition.

THE BUDDHIST ONTOLOGICAL REDUCTIONISM

The Buddhists admit only two kinds of reality: (1) event, which is fundamental, unanalyzable, and irreducible, and (2) continuant, which is derived from the flow of such events. In our day-to-day transactions only the continuants are talked and thought about, and become the designata of words. Only such continuants are the subject matter of empirically meaningful statements. In their reductionist programme, any true statement about an ostensible 'being', such as chair, is derivable from and reducible to the statements about actual and possible events, causal efficiency, and accomplishment of human interest. This programme is a principal device to get rid of fictitious entities like 'universals' whose seeming ontological reference-claim in a statement is demonstrated to be empty in content. Its another advantage is to maintain a clear-cut distinction between a fundamental being and a derivative one, and to make us commit ontologically to the former primarily and to the latter secondarily. It also helps demolish many metaphysical assumptions and myths, and the dogmatic arrogance of naïve realism as well as purely speculative idealism, without making commitment to any alternative dogmas. It refrains from falling prey to pretentious knowledge-claims of others. Demolition of existential beliefs in such knowledge-claims automatically demolishes the judgements of truth and reality arising from such claims. This is a step forward to the realization of quietude (*nirvāṇa*), the *summum bonum* of every human being. The Buddhist slogan 'to be is to be an instantaneous being' (*yat sat tat kṣaṇikam*) is the culmination of their reductionist programme.

The whole Buddhist epistemology is set to make a distinction between ultimate reality (*svalakṣaṇa*)[29] and the reality given to us in our everyday perceptual experience (*sāmānyalakṣaṇa*).[30] Throughout Buddhist philosophical literature we find that the Buddhist philosophers have set the major task of their epistemological inquiry to examine the justifications of various kinds of knowledge-claims made by our cognitive or non-cognitive beliefs, thought, and language. The Buddhists are well aware of the subjective elements implicit in all kinds of knowledge-claims. But this does not mean that one should be a thorough sceptic to every knowledge-claim. The Buddhists think that there is a need to determine the limits of any knowledge-claim and to judge its applicability only in the spatio-temporal-causal network, and in terms of causal efficiency and accomplishment of human interest and thus to find a way out of the pure rational and mythical constructions and beliefs in them.

THE BUDDHIST CONCEPTION OF 'GIVEN' AND 'CONSTRUCTED'

The subjective elements, involving distortions and manipulations, in knowledge-claim and thinking raise certain significant questions: If subjective elements are indispensable, how is it possible to know the true nature of the 'given'? The more basic question is: What is 'given'?—an internal (*ādhyātmika*) or external (*bāhya*) reality? Before answering these questions we shall first have to answer the question: What are those things which are given to us in our direct perception? In the Buddhist framework, the immediately given to the mind are sense data which are mental events. The mind blurs the distinction between these discrete data and the continuant derived from them. It is the latter which is an intended object of our ordinary perception. In the Buddhist analysis, both the primitive 'given' as a mental event and the secondary 'given' as a continuant are mind-dependent and thus internally 'given' or 'structured'.[31] The fundamental 'givens' are presented as material form (*rūpa*), feelings (*vedanā*), perceptions (*saṃjñā*), dispositions (*saṃskāra*), and consciousnesses (*vijñāna*). The Buddhist world-view is developed on these foundations. The Buddhists try to examine every presupposition they admit for any theory construction and allow it to take its logical and natural direction in its development. They are not guided by any preconceived model or thought pattern.

The Buddhists maintain that some of the fundamental entities are in our direct experiential contact. Their world is the world of spatio-temporal-causal system which is open to the public. The particular manner of interrelatedness of the fundamental entities produce a form of the world in the secondary sense. The world in the primary sense is the totality of the fundamental entities which are momentary events endowed with the status of 'being-with-existence' (*sattā*). The ultimate entity by nature cannot be a subject of predication (*anirdeśya*)[32] and is conception-free (*nirvikalpaka*). A construction with shared features (*sāmānyalakṣaṇa*) is innate in our knowing process. In our everyday transactions (*lokavyavahāra*) such constructions constitute our common world of spatio-temporal-causal network. Any actual locatable state of affairs should be taken in this sense. In our philosophical analysis of the world, we shunt between fundamental entities and the derivative ones. The latter, such as chair, tree, and table, are particulars of ordinary perceptions which in Buddhist philosophy are merely names of different series of events somehow interrelated in a temporal order forming a continuant in spatio-temporal continuum. Other entitites of the world, like x-rays, which are not

conventionally in direct experiential contact, are very much 'real-with-existence' as they are working in our spatio-temporal-causal system and are thus predictably and regularly capable of accomplishing the human purpose of diagnosing diseases.

The Buddhists opine that the continuants or any other constructions to be 'real-with-existence' must be grounded in the 'given', the transitory sensorial-cum-mental events, which are the objects of immediate perceptions. The first order construction, but the second order reality which is at least grounded in perceptions (=*pratyakṣapṛṣṭhabhāvī*), like chair, does not justifiably give rise to a further reality like chair-universal or chairness. It is simply our manner of speaking caused by false similarity that a certain type of continuants or conventional particulars are called by a common name like chair. The predication of an individual as 'chair', as in the sentence—'This is a chair', is not because of a higher being 'chair-universal' or 'chairness' (whose instances are individual chairs) having been located or inherent in these individuals. The Buddhists thus keep the 'universals as higher beings-with-existence' outside the empirical world of spatio-temporal-causal system. At the most, universals can be called pure mental or abstract entities which are unfamiliar in experience as opposed to the concrete ones which are familiar and found in our everyday world. More on it later.

TYPES OF THE WORLD

Basically the Buddhists maintain two types of world: one, the world of common man, of name and form (*rūpaloka*),[33] as experienced in an unreflective manner and whose fundamental entities are continuants qualified by various properties like universals. Everyday transactions are carried out in this world. Second, the world known by reflective mind (*arūpaloka*) which is undoubtedly considered in every respect a qualitatively better world than the first one. As Buddhist philosophy is a universal cultural activity in essence and purpose, it further refines and develops itself to suit the needs of the world. Its motivating factors are universal ethical considerations. This is the world known in reflection. Further, the result of reflective exercise in general is twofold: one, it constructs a world following logic of thought, i.e. by applying sophisticated rationality. Such constructions are invariably subjective in nature, historically many in number, and having their own rigid truth-claims, because of which they often clash with each other casting a devastating effect on the individual as well as society or world in general. This is a historical

fact. A world with such conflicting truth-claims is more dangerous for humanity and the whole biosphere and the animal world. The plurality of the mutually exclusive world-views, ideologies, fanatic religious practices, etc. have sufficiently shown their catastrophic impact in the history of mankind. The Buddhists try to go beyond the worlds of pure and non-cognitive-belief-guided rationality. They advise to transcend such rationality but without abandoning reflective activity. They think if reflective activity ends in pure or mythical rationality, it becomes narrow in scope and suffers from incurable scepticism or blind faith. This kind of rationality also limits the practices of virtues and ultimately creates conflicts and suffering of various sorts at all levels. Therefore the ideal state of existence is the realization of the hollowness of such rationality.[34]

Now it is clear that the nature of truth and meaning varies in accordance with the type of world we talk about. Realization of this fact brings radical transformation in one's personality which is reflected in one's daily behaviour. Then things become easier for cultivating and promoting universal cultural activity. The sweeping denial, by the Buddhists, of human personality (*pudgala*), continuity (*saṃtati*), bundle of elements (*skandha*), causal factors (*pratyaya*), atoms (*aṇu*), primary substantial cause (*pradhāna*), and creator God (*kartā*) as realities in themselves and calling them products of discursive thinking (*vikalpa*)[35] are aimed at achieving the highest social and moral values.

The uniqueness and the merit of the Buddhist way of doing philosophy lies in the phenomenological fact that they do not begin philosophical thinking with already accepted framework, belief, and prejudices available in the ongoing tradition. Instead, they begin with certain experiential facts, analyze them without succumbing to unexamined presuppositions and beliefs, and then allow this analysis to establish in a natural way certain truths, theories, and frameworks which become for them grounds or presuppositions or theses for further discussions. Further, the Buddhist analysis of the different metaphysical world-views, which are presupposed without examination and accordingly argued and established by other schools of thought, shows that all constructions, talks, and descriptions of the empirical or conventional beings are interplay of the mind-generated concepts and words, that are interchangeable,[36] according to the convenient manner of thinking, speaking, and writing. This amounts to holding conceptualism and nominalism.

CONCEPTUALISM AND NOMINALISM

We can say that there is a cautious entry of universals, but not as extramental and extra-linguistic realities, into the Buddhist framework of philosophizing. The Buddhists maintain that the mind's intrinsic incapacity to know the fundamental entities 'as they are' and the similarity in the appearances (*sādṛśya*), in respect of their causal efficiency, of such entities passing away in a series give rise to the false notion of a continuant like chair. All this happens unknowingly within the knower's cognitive constitution. But when such continuants are further taken, in our day-to-day perception which is inferential and interpretive in nature, as similar in appearances, we conveniently classify them under one category, each member of which is denoted by the same general term, say, 'chair'. It is important to know here that a concept or a linguistic term is always general in nature but both are respectively formed in and applied to individual cases. Although they are mental products, they help recognize their individuals whenever we confront them.

The use of general concepts and terms like chair is learnt in social contexts. Since the general terms and concepts are indispensably functional in our language, thought, and action, the realists, under the necessity of their system's logic, are compelled to posit a higher 'being-with-existence', viz. universal, which they think is located in a group of individuals often called its instances. The Buddhist analysis of 'being-with-existence' proves that universals are pure mental concepts and if assigned ontological status, they will create a number of insurmountable philosophical problems, overcrowding, absurdities, confusions, and perplexities. At language level, the use of the same predicate to describe different continuants, by extension, encourages one to construct many metaphysical realites. From the preceeding discussions, it follows that the Buddhists are now able to distinguish the various uses of the verb 'exists' as exemplified in the following sentences:

Event exists.	Chair exists.
Cow exists.	Country exists.
Aggregate of bricks exists.	Universal exists.

What we find in our world of behaviour is that our manner of speaking of the verb 'exists' instinctively makes us believe in the ontological status of the subject it qualifies. From the above uses of the verb 'exist', it is to be concluded that in Buddhism, apart from the fundamental and immediately derivative modes of existence of entities as 'being-with-existence', no other use of 'exist' genuinely speaks of the ontological status of an entity as 'being-

with-existence'. Such entities as 'universals' are mere concepts and names. In Buddhism, the business of predication falls under various mental acts. Predication is sensibly applicable only in the case of immediately derivative entities. Any further derivation is estranged from being designated as 'being-with-existence'.[37]

The Buddhist purpose of dissolving hypostatization of mental constructs like universal out of experience, thought, and language is to pave the way for sublime quietude (*nirvāṇa*). Their conceptualism and nominalism are directed towards this goal.[38] Since generalization and the use of general terms are not derived directly from any cognitive act or the process of understanding and are instinctive in origin, the notion of universal as an extra-mental reality falls apart.

BUDDHIST THEORY OF DESCRIPTION AND INTERSUBJECTIVE DISCOURSE

Denial of ontological status to purely mental constructs does not entitle the Buddhists to be called sceptic or nihilist. They very much allow the use of description and recognize meaningful discourses. In their world of continuants, meaning and reference can go together, but in respect of fundamental entities there is possibility of meaning only, and not of reference. Any theory of description takes the status of subject and the nature of its predicates, their meanings, and truth-reference, into account. Description of the fundamental entities (*svalakṣaṇa*) is possible only through the reductionist programme envisaged above. Technically, it is called *adhyavasāya*,[39] i.e. determination through inference. For any genuine description or meaningful intersubjective discourse, the immediately derivative continuants are the common grounds. They are directly given in our common experience. The use of language is learned in constant social and environmental contexts which make the meaning business a matter of mental habits (*vāsanā*).[40] As I have said, in our everyday transactions (*lokavyavahāra*) the continuants become the particulars, the basic units of the world. Hereafter, intersubjective discourse in any mode of description presupposes a common conceptual scheme. There is not much social or mental problem uptil now. But when the question of interpreting this world arises, we find that different alternative interpretations are offered, which are sometimes found simply differing, but at other times violently opposed to each other. When this difference is translated into our behaviour, there arise various kinds of social conflicts, the end

result of which is human suffering and even the loss of biosphere and poisoning of the whole atmosphere. The two world wars are the glaring examples of such devastating conflicts. The Buddhists make all-out effort to eliminate the existing human suffering as well as to check the possible ones by changing the human attitude and demonstrating the dangerous implications of subjectivity and creativity of pure rationality, and metaphysical, religious, and other non-cognitive beliefs. This project has not only a curative and preventive role but also a constructive role to play.

We know the world only through our mental habits formed in a particular social context. This means that the objective world, i.e. the so-called common world, cannot genuinely be described according to any philosophic framework. Further, since different philosophic frameworks and interpretations give different descriptions of the same world, the intersubjective discourse becomes an impossibility which will be, in Buddhist opinion, the most dangerous thing for the entire humanity as well as the biosphere. The Mādhyamika Buddhists painstakingly demonstrate the conflicts of various differing subjective views and prove such views or descriptions of the world as ultimately empty in content.[41]

DIṄNĀGA ON PARTICULAR AND UNIVERSAL

The Sautrāntikas presented polemics against the Vaibhāṣika inclusion of the extramental elements (cf. *citta-viprayuktasaṃskāra*)[42] in the list of basic elements (*dharma*) and admission of one of them as universal (*sabhāgatā*) under the pressure of the non-Buddhist realists. Instead, they introduced the idea of pure mental and arbitrary contructions (*prajñapti*) of entities.[43] The Mādhyamikas like Nāgārjuna fully worked out the nature and implications of the subjectivity (*prajñapti, kalpanā*) which is responsible for all kinds of objectification of what are purely mental acts. Diṅnāga certainly benefitted from the Sautrāntikas as well as the Mādhyamikas and Vasubandhu, while shaping his philosophical doctrines.

On particular and universal, Diṅnāga pursues further the general Buddhist conception. He maintains two kinds of real: particular or event (*svalakṣaṇa*) and continuant (*sāmānyalakṣaṇa*) which is constructed on perpetual flow of these particulars radiating uniform appearances. Mind only constructs these appearances as unitary (*eka*) which is the source of the idea of continuant endowed with various aspects such as form and colour. Although the particulars are different from each other, mind following the principle of abstraction

(*apoddhāra*) constructs the unity or uniformity among them (*bhedeṣu abhedakalpanā*).[44] Diṅnāga holds that universal, although not an extramental reality, is mistaken for 'being-with-existence' because its assigned properties are apprehended in many 'continuants as empirical particulars'.

I think, unlike Radhika Herzberger,[45] that Diṅnāga uses the two terms, *sāmānyalakṣaṇa* and *sāmānya* in different senses. The former is used in the case of a continuant which is constructed on the basis of direct sense perceptions, while the latter is used for a universal property located in many continuants. The universal property is called universal (*sāmānya, jāti*) having the characteristics of being one (*ekatva*) and eternal (*nityatva*), and located in each instance of a certain class of continuants-cum-individuals (*pratyekaparisamāpti*).[46] Radhika Herzberger commits a series of mistakes in interpreting Diṅnāga, because she did not understand the basic difference between the two terms. Diṅnāga accepts the empirical reality of (*sāmānyalakṣaṇa*), but denies the same in the case of *sāmānya*. He shows the logical impossibility of a real universal, because its two characteristics, oneness (*ekatva*) and repeatability in many particulars (*pratyekaparisamāpti*) are mutually incompatible. Hayes elaborates this argument as follows:

> A universal's residence in an individual must be either complete or partial, that is, either entire universal resides in an individual or only part of it does. If a universal U resides in its entirety in given individual u_1, then it does not reside at all in individuals u_2, u_3, u_4, ..., u_n and thus fails to be resident in a plurality of individuals. If on the other hand the universal is conceived as residing only partially in each of its individual instances, then it loses its indivisibility, for then it has as many internal divisions as there are individuals in which it supposedly resides.[47]

Diṅnāga, therefore, does not commit to universal any ontological status of 'being-with-existence' (*sat*) in either primary or secondary sense. Universal thus is an explanatory presupposition, an imagination of mind.

DIṄNĀGA'S THEORY OF NAMES AND DENOTATION

Diṅnāga by maintaning a distinction between the fundamental reality and the derivative one draws a demarcation line between the two fields of (1) conception-free and prepredicative (*nirvikalpaka*) sense experience (*pratyakṣa*, which is knowledge free from mental construction) and the predicative, conception-laden (*savikalpaka*), abstractional, conventional, and scientific knowledge. Only the latter has its intended object in spatio-temporal continuum. This is the level of our experience of an empirical object. At this level is created a field for various kind of transactions (*lokavyavahāra*) concerning knowledge, thought, action, meaning, value-judgement, etc. All this is possible by the activities of our mind which by its constitution and nature is an organizing, name-giving, and meaning-creating principle. It assigns various names to the derivative entity with respect to its various aspects. The mental function is technically called *kalpanā* which is defined as that which assigns names denoting proper name (*yadṛcchāśabda*), genus (*jāti*), substance (*dravya*), quality (*guṇa*), and action (*kriyā*)[48] of an individual. All these names are general terms which designate the properties (*viśeṣaṇa*) of a continuant-individual.[49] The application of these terms is without any ontological basis.[50] A continuant-individual has many properties and a general name can designate only one of them. This means that the same individual, say, a tree, can be designated by different terms or names like 'tree' (*vṛkṣa*), 'earthly' (*pārthiva*), 'substance' (*dravya*), and 'existent' (*sat*) as it is supposed to possess various aspects.[51] The process of designation by a term is made possible through the method of association and dissociation.[52] I shall dwell upon this issue in the next section. Radhika Herzberger[53] summarizes Diṅnāga's points on the theory of name as follows:

1. Names denote objects on the basis of shared features.
2. What is denoted by a name on the basis of a shared feature is neither an intrinsic feature (*svalakṣaṇa*) nor a shared feature (*sāmānyalakṣaṇa*), but objects which are members of a class.
3. Names have multiple denotations.
4. Demonstratives are the only mode of singular denotation.
5. Two or more names can denote the same objects.

Further, since names are general terms and a name applies to a continuant-individual, we mistake the name for referring to or denoting a genuine individual. Secondly, the general terms are instinctively taken as designating 'being-with-existence'. This commits us to their ontological status. Diṅnāga, in order to get rid of the problem of denotation in two cases—one, the case of a continuant-individual being taken as an instance of a 'universal being' and second, the 'universal being' itself—devised a double negation theory (*apohavāda*) which safely overcomes these difficulties. He, for the purpose of interpreting language–reality relationship, suggested that a continuant-individual can be referred to only by a demonstrative like 'this' or 'that', because it is locatable in space (*deśamātra*),[54] whereas a universal, since it is not

'being-with-existence', can be referred to neither by a demonstrative nor a general term. The double negation theory is applicable to such general terms only, not to demonstratives. With regard to a proper name, Diṅnāga says that it is an arbitrary term (*yadṛcchāśabda*). It does not describe its bearer, it only demonstratively denotes a continuant-individual which is a highly complex being.[55]

DOUBLE NEGATION THEORY OF MEANING

The preceding discussion paves the way for understanding Diṅnāga's double negation theory of meaning. This is a theory of explanation sought to explain the true meaning and functioning of *kalpanā*-generated linguistic entities, their interrelationship, and our ontological commitment to what they stand for. We will see in this section that the double negation theory, in wider context of 'event theory of reality', is designed to show that a linguistic entity functions exactly like an inferential sign (*liṅga*) in generating knowledge. The interrelationships of such entities are found, according to Diṅnāga, only in the context of sentences, and any ontological commitment to corresponding extra-linguistic entities like universals is nothing but extended application of linguistic entities. Even a singular linguistic term like 'cow' has no first order singular referent like 'event' which is ultimately irreducible. What it stands for is the reducible, derivative continuant-individual, which is a synthesis of a series of discrete but similar cognitive acts.[56] But such referents, which are second order realities, are admissible in our everyday transactions. The two orders of reality represent the two types of world, micro-world and macro-world respectively. The referent of a word like 'cow', which has a spatio-temporal status, is a complex fact called 'cow', a continuant-individual. The same is the case with the referents of other linguistic entities (namely, proper names, adjectival names, genus names, verbial names, and substantival names). The double negation theory directly applies to these names or linguistic entities by showing their ultimate emptiness in content. The other items, mentioned above, are explained easily. If the linguistic entities are vacuous in content, their meanings also will have to be admitted empty in content.

In the very first *kārikā* of his *Pramāṇasamuccaya* (chapter V), Diṅnāga discusses the nature and function of a word:

> *napramāṇāntaraṃ śabdam anumānāt tathāhi tat/*
> *kṛtakatvādivat svārtham anyāpohena bhāṣate//*[57]

> Word-generated knowledge is not a different source of knowledge from inferential knowledge; the word designates its own object by negating other than what it designates just as the inferential sign having been genuinely established establishes what is to be proved.

This *kārikā* clearly says that the process of knowing derived from a word or a linguistic sign is similar to the process of knowing from inferential sign.[58] I am not dwelling upon this issue here. For me, the more important issue at present is that of the different interpretations of double negation theory and the kind of 'being' it is applied to. I touched upon these issues earlier as to why we should free ourselves from committing the ontological or existential status to the constructed and nominal entities which are the referents of linguistic entities. Now in philosophical analysis the issue of how to achieve this result is settled by introducing the double negation theory by Diṅnāga. Let us take an example of an affirmative sentence which is frequently used in our everyday transactions: 'This is a chair'. We can analyze this sentence in a realist way as follows. 'This', which is a demonstrative, ostensibly refers to a continuant-individual which has a spatio-temporal status and when used in isolation does not assign any predicate to the object. But in the above sentence it is predicated of 'chair' which is a generic name (*jātiśabda*) and which qualifies 'this', the individual. When the predicate 'chair' is used, 'this' becomes the individual 'chair' and the predicate 'chair' becomes the universal 'chair'. The same sentence can be paraphrased as 'This chair has chairness' which says three things:

1. There is an individual chair.
2. There is universal chair located in individual chair.
3. There is a possessive relation between individual chair and universal chair.

For Diṅnāga, as long as a demonstrative is used and *kalpanā*-generated descriptive or predicative words (*nāmajātyādi*) are used, there is no need of applying the double negating technique. But a predicate word like 'chair' demands too much and a common man commits 'being-with-existence' to such predicates, going beyond the scope of the empirical world existing in a network of spatio-temporal-causal system. Double negation technique is required to be used in such cases so that unwarranted and non-empirical entities like 'universal' and 'relation' are estranged from their existential status. In Buddhism, the referent of 'this', a continuant-individual also is a constructed and derived entity, but it has its pragmatic use in our world. Therefore, there

is no need of subjecting a demonstrative to double negation operation which in Diṅnāga's case is a purely linguistic device. Double negation theory is simply a philosophic and linguistic paraphrasing which maintains a semantic distinction between a property-loaded name and the negation of its correlates. Thus,

Cow = non-non-cow

This is an indirect way of referring to an object estranged from the universal property which is empty in content.

VARIOUS FORMULATIONS OF DOUBLE NEGATION THEORY

Diṅnāga's double negation theory of meaning was further modified and elaborated, in the light of the criticisms by the Mīmāṃsakas and the Naiyāyikas, by Dharmakīrti, Śāntarakṣita, Jñānaśrī, and Ratnakīrti. In this section, I shall present a very synoptic account of their contributions made in this regard.

Dharmakīrti's improvement upon Diṅnāga's empiricist and phenomenological theory of meaning is that he tried to introduce an *a priori* factor to account for certainty in our knowledge and understanding. The crucial questions in this context are asked: What is the unifying principle of our knowledge and understanding? Is it a product of empirical experiences or an *a priori* element present in our consciousness beginninglessly (=*anādivāsanā*)? In Diṅnāga's empiricist and phenomenological framework, there is always an uncertainty about the truth of a general statement like 'fire burns' unless it is verified and found true, i.e. found possessing causal potency in all the actual and possible cases of fire. This is an impossibility. The certainty element then becomes a psychological (not a logical) and contingent fact which is based on an abstraction from our unitary understanding of general statement. Diṅnāga's empirical and phenomenological conception of 'given', 'constucted', and their relationship is different from that of Dharmakīrti who wants to make 'certainty' a product of necessity given *a priori*. In Diṅnāga, repeated verification of the truth of a singular statement leads to the truth of a general statement. The ensuing problem is that once mental construction is allowed as in the case of assigning various names to a continuant-individual, the relation between a singular statement and the general statement becomes a contingent matter, i.e. very loose and uncertain in nature.[59] In Diṅnāga, invariance in the truth of a general statement is based on the condition of not finding any

variance in its truth.[60] In Diṅnāga's framework, only this much can be claimed about certainty.

Further, Diṅnāga takes perception as more fundamental than inference, but Dharmakīrti doubts the primacy of perception (cf. *na pratyakṣaṃ kaścin niścāyakam*)[61] and considers *a priori* element more fundamental than any empirical experience. To strengthen his position, he brings in the concept of beginningless disposition (*anādivāsanā*),[62] which accounts for universals (*sāmānya*), and the two principles (*niyama*) of identity (*tādātmya*) and causality (*tadutpatti*) that signify the two kinds of invariance relationship (*avinābhāvasambandha*) between empirical concepts. Radhika Herzberger[63] has elaborated these and other related issues. It is not possible here to evaluate her arguments in interpreting Dharmakīrti. My main concern here is to see whether Dharmakīrti made any change in Diṅnāga's double negation theory of meaning. Radhika Herzberger has not dwelt upon this issue, although she has made an admirable attempt in discussing many other related issues.

What I think is that the admission of an *a priori* element does not make universal a being (*bhāva*) in the spatio-temporal-casual system. Dharmakīrti's motive was to bring in at least conceptual certainty into our knowledge and understanding so that our future behaviour is guided and predictability is established in everyday transactions. He accepts in toto Diṅnāga's double negation technique to identify the meaning of a general term. But he unravels Diṅnāga's *apoha* theory and makes its application comprehensive.[64]

Now let us take another issue, that is, the issue of the process of designating attributes to a continuant-individual. In his *Pramāṇasamuccaya*,[65] Diṅnāga enunciates that attributes of a substratum (*dharmin*) are never apprehended in sense perceptions, and the act of attribution is purely an act of mind. Dharmakīrti, on the basis of *a priori* principles which are also in essence mental, talks of the distinction of own nature (*svabhāva*) and other-nature (*parabhāva*) at conventional level, which at ultimate level is not possible. All beings (*bhāva*), he says, maintain their indentities according to their own natures. They are subject to differentiation on the basis of own-nature and other-nature.[66] But when we fail to distinguish such different beings because of their similar appearances, as in the case of different individual cows, we then succumb to the *a priori* principle. This is a matter of necessity. Thus we construct universal attribute (*jāti*) residing in a set of individuals. Likewise, many other kinds of universals are constructed.[67] It is now clear that an individual which is apprehended as possessing only own-nature is subsequently attributed with different properties by different mental acts.

An individual is thus falsely known as possessing various properties. This means that any dichotomy between subject and predicate, substratum and property, sign and signified, word and referent, is not a matter of fact, but a mental construction.[68]

Another related question arises: How do we attribute various properties to an individual being, say, cow, as being an animal, white, or as possessing cowness, a tail, four legs, etc., all of which are general terms? Dharmakīrti here invokes Diṅnāga's double negation technique for the reasons discussed above, that is, to disclaim their denotational and connotational functions, and to get rid of unwarranted ontological commitment to beings like universals. According to this technique, we assign the property of being animal to cow by negating its artificial complementary class non-animal. Likewise, we attribute other properties to cow. This shows that there is a need of operating double negation technique as many times as there are properties to be attributed to an individual being.[69]

The emphasis on the negative aspect of meaning of a general term by Diṅnāga and Dharmakīrti was subjected to severe criticism by the Mīmāṃsakas and the Naiyāyikas like Uddyotakara and Kumārila who maintained that the meaning of a general term is an individual qualified by universal (*jātiviśiṣṭavyakti*) or primarily universal (*jāti*) and secondarily individual (*vyakti*). They forcefully argued that when we hear a word or a sentence, the comprehension of its meaning is invariably something positive, only at a later stage we realize the exclusion of other. This argument appealed to Śāntarakṣita who modified the *apoha* theory by accommodating the positive element in it, but without shading off its negative aspect. He holds that a word, when uttered, generates an image (*pratibhāsa*)[70] first, which is a mental construct and at a subsequent stage its meaning is determined through the operation of double negation technique.

In the above analysis, I have said that Diṅnāga never denied positive element in the comprehension of meaning, but when the question of defining a general term arose, he devised a double negation technique to get rid of our tendency of committing ontological status to such entities as universals. Śāntarakṣita and his commentator Kamalaśīla misunderstood Diṅnāga's contention and claimed to have modified the *apoha* theory to silence the critics, whereas Dharmakīrti's application of double negation technique was widespread. Katsura rightly observes:

> Dignāga first got the idea of *anyāpoha* (exclusion of the other) while 'working on the inference. He then applied it to verbal knowledge (*śabda*), and came to believe that *anyāpoha* was the common function of both inferential and verbal knowledge under the category of inference. While Dignāga devoted most of his discussion of *apoha* to the analysis of the object of verbal knowledge or the meaning of the word, Dharmakīrti freely applied the principle of *anyāpoha* to the various problems related to conceptual knowledge (*vikalpa*), such as the object, the essence, the origin, and the function of conceptual knowledge. Thus, to Dhamakīrti, the *apoha* theory was not merely the theory of meaning, but 'Problem des Begriffs' as named by Professor Vetter. The fact that Dharmakīrti applied the principle of *anyāpoha* beautifully to the theory of causation in the *Hetubindu* indicates that it is a sort of 'working hypothesis', which is equally applicable to many problems of ontology, epistemology and logic.[71]

The third and the last phase of the development of *apoha* theory was initiated by Jñānaśrī and Ratnakīrti. They maintained simultaneous presence of both positive and negative elements in our understanding of meaning. In other words, understanding meaning of a word (*padārtha*) is always something positive qualified by double negation (*anyāpohaviśiṣṭavidhi*). It is not possible here to go into details of the development of *apoha* theory and its polemics against the Mīmāṃsakas and the Naiyāyikas, and *vice versa*. The lack of space does not allow me to elaborate these details.

Notes and References

1. *Saṃyutta-nikāya*, V. 420.
2. Kalupahana, p. 59.
3. *Bodhicaryāvatāra*, VII. 63.
4. Cf. *Dīgha-nikāya*, 2.157; *Saṃyutta-nikāya*, 1.191: aniccā vata saṃkhārā uppādavayadhammino, uppajitvā nirujjhati tesaṃ vupasamo sukho. Also see *Abhidharmakośa-bhāṣya*, p. 271.9–10: sarve saṃskārā anityāḥ, sarve dharmā anātmanaḥ, śāntaṃ nirvāṇam; and *Madhyamaka-kārikā-vṛtti*, pp. 13.3–4.
5. Conze, p. 34; Cf. *Majjhima-nikāya*, II.263: yad aniccaṃ taṃ nālam abhinanditum, nālam abhivāditum, nālam ajjhositum.
6. Cf. *Aṅguttara-nikāya*, II, p. 52: cattāro 'me bhikkhave saññāvipallāsā cittavipallāsā diṭṭhivipallāsā. katame cattāro? anicce bhikkhave niccaṃ ti ... dukkhe bhikkhave sukhaṃ ti ... anattāni bhikkhave attāni ... asubhe bhikkhave subhaṃ ti ...; Also cf. *Abhidharmadīpa*, pp. 234–5; *Ratnagotravibhāga* in Prasad (1991), pp. 30–1.
7. Discussed in Kalupahana, p. 42.

8. Ibid., p. 40: attā nicco dhuvo sassato avipariṇāmadhammo (*Majjhimanikāya*, I.136).
9. *Milindapañha*, p. 25: Nāgaseno ti kho ahaṃ mahārāja ñāyāmi ... api ca mātāpitaro nāmaṃ karonti Nāgaseno ti vā Sūraseno ti vā Vīraseno ti vā Sīhaseno ti vā, api ca kho mahārāja saṅkhā samaññā paññati vohāro nāmamattaṃ yad idaṃ Nāgaseno ti, na h'ettha puggalo upalabbhatīti.
10. *Dīgha-nikāya*, I, p. 202: itimā kho citta loka-samaññā loka-niruttiyo loka-vohārā loka-paññattiyo yāhi Tathāgato voharati aparāmasan ti.
11. *Suttanipāta*, 886.
12. Translation by Kalupahana, p. 136.
13. *Dhammapada*, I.1–2.
14. *Aṭṭhasālinī*, p. 34.6–7.
15. Tr. by Pe Maung Tin (1976), p. 50. Also see Guenther, p. 5, n. 3.
16. Conze, p. 97.
17. *Abhidharmakośa*, I.20 ab.
18. Cf. *Visudhimagga*, XIV.216, 218.
19. Cf. *Abhidharmakośa-bhāṣya*, p. 104.7–8: ahaṃkārasanniśrayatvāc cittam 'ātmā' ity upacaryate. Also see *Ratnāvalī*, 29–30 and *Madhyamaka-kārikā-vṛtti*, p. 147.22–25.
20. *Saṃyutta-nikāya*, I.135.
21. Tr. by *Kalupahana*, p. 39.
22. *Abhidharmakośa-bhāṣya*, p. 59.3: cittacaittāyadvārārtha āyatanārthaḥ.
23. Cf. *Madhyamaka-kārikā-vṛtti*, p. 147.22.
24. *Ratnakīrtinibandhāvalī*, p. 67.7–13.
25. Cf. *Pramāṇavārtika*, 1.3a–c: pramāṇam avisaṃvādijñānam; arthakriyāsthitiḥ/ avisaṃvādanam ...
26. Cf. *Nyāyabindu*, I.1: saṃyagjñānapūrvikā puruṣārthasiddhiḥ.
27. Cf. Prajñākara on *Pramāṇavārtika*, 1.1 (quoted in Nagatomi, 1967–68, p. 56): arthasya dāhapākādeḥ kriyāniṣpattis tasyaḥ sthitir avicalanam avisaṃvādakaṃ vyavasthā vā.
28. Cf. *Pramāṇavārtika*, II.1, 2, 3, 53, 54; III.93, 94, 98, 166, 210 & 211. Also see Nagatomi (1967–68) and Mikogami (1979).
29. Cf. *Pramāṇasamuccaya-vṛtti* (I.2) and *Dvādaśāraṃ Nayacakram*, pp. 88.3–89.1: na hi svasāmānyalakṣaṇābhyām anyat prameyam asti. svalakṣaṇaviṣayaniyatam pratyakṣam, sāmānyalakṣaṇaviṣayaniyatam anumānam. Also cf. *Pramāṇavārtika*, II.1–2, 63, and Manorathanandin and Prajñākaragupta thereon.
30. Dharmakīrti denies independent ontological status of *sāmānyalakṣaṇa*. According to him, *svalakṣaṇa* is the only fundamental reality to be recognized: meyaṃ tu ekaṃ svalakṣaṇam (II.53d). Hattori (1968, p. 80) comments: 'That there are two sorts of *prameya* implies that *svalakṣaṇa* is apprehended in two ways, as it is (*sva-rūpeṇa*) and as something other than itself (*para-rūpeṇa*), but not that there is a real *sāmānya* apart from *sva-lakṣaṇa*. Thus, the distinction between

sva-lakṣaṇa and *sāmānya-lakṣaṇa* is the result of a changed perspective.' Cf. *Pramāṇavārtika*, II.54cd: tasya sva-para-rūpābhyāṃ gater meya-dvayaṃ matam.
31. Cf. *Abhidharmakośa-bhāṣya*, p. 31.2–3: caksurbhikṣo ādhyātmikam āyatanaṃ catvāri mahābhūtāny upādāya rūpaprasādaḥ; p. 61.1: rāsivad eva skandhāḥ prajñaptisantaḥ.
32. *Supra*, n. 29.
33. See Hayes, pp. 100–1.
34. Cf. *Sutta-nipāta*, 754–5 and the concept of *traidhātuka* in *Triṃśikā* and *Madhyāntavibhāgaśāstra*.
35. *Laṅkāvatāra-sūtra*, 2.137: pudgalaḥ santatiḥ skandhāḥ pratyayāḥ aṇavas tathā/ pradhānam īśvaraḥ kartā cittamātraṃ vikalpyate//
36. Diṅnāga quoted by Jayanta in his *Nyāyamañjarī*, p. 145.6, and also in *Dvādaśāraṃ Nayacakram*, p. 547.7: vikalpayonayaḥ śabdā vikalpāḥ śabdayonayaḥ.
37. Cf. *Tattvasaṃgraha*, 723–9, 735, 773–4.
38. Cf. *Triṃśikā*, 28–30.
39. Cf. *Jñānaśrīmitranibandhāvalī*, pp. 226.2, 332.25–6.
40. Cf. *Pramāṇavārtika*, II.205.
41. See Prasad, H.S. (1995).
42. See P.S. Jaini and Hattori (1977), p. 53.
43. Cf. *Abhidharmakośa-bhāṣya* on *kārikā*, II.40.
44. Radhika Herzberger, p. 167.
45. Ibid., pp. 166–7.
46. *Pramāṇasamuccaya-vṛtti* (quoted in *Dvādaśāraṃ Nayacakram*, p. 729.6–7): jātidharmāś caikatva-nityatva-pratyekaparisamāptilakṣaṇā atraiva vyavatiṣṭhante, abhedād āśrayānucchedāt kṛtsnārthapratitiś ca. evaṃ doṣābhāvād guṇotkarṣāc ca śabdo 'rthāntaranivṛttiviśiṣṭān eva bhāvān āha.
47. Hayes, p. 183. Also cf. *Pramāṇasamuccaya*, II.16.
48. Cf. *Pramāṇasamuccaya*, I.3d: nāmajātyādiyojanā and *Vṛtti* thereon.
49. Radhika Herzberger, p. 120.
50. Cf. *Pramāṇasamuccaya-vṛtti* (in *Dvādaśāraṃ Nayacakram*, p. 629.19): nānimittaḥ sa ca mataḥ.
51. See Hattori, 1980, p. 62.
52. Cf. *Pramāṇasamuccaya-vṛtti* on *Kārikā*, V.34 (in *Dvādaśāraṃ Nayacakram*, p. 650.18): anvayavyatirekau hi śabdasyārthābhidhāne dvāram. Also see Hayes, pp. 181–3, and Hattori (1980), p. 62, n. 3.
53. Radhika Herzberger, p. 168.
54. Ibid.
55. Ibid., p. 190, n. 21 on the complexity of proper name in Diṅnāga, cf. *Dvādaśāraṃ Nayacakram*, pp. 652.14–15: guṇasamudāyo hi ḍitthākhyo 'rthaḥ, na ca sarve kāṇakuṇṭādayo ḍitthaśabdād gamyate; and pp. 662.1–4.
56. Cf. *Pramāṇasamuccaya*, V. 50 in Hayes, p. 189 and p. 218, n. 14.
57. *Pramāṇasamuccaya*, V.1.
58. For details, see *Pramāṇasamuccaya*, chapters II and V.27–39.

59. Cf. *Pramāṇasamuccaya*, V.34 and *Vṛtti* thereon, and Radhika Herzberger, p. 214.
60. Ibid.
61. Dharmakīrti's *Svavṛtti* on *Pramāṇavārtika* (Svārthānumāna, *kā*. 57). Also discussed by Radhika Herzberger, p. 236, n. 24.
62. Dharmakīrti, ibid., *kā*. 205: anādivāsanodbhūtavikalpaparinisṭhataḥ/ śabdārthas trividho dharmi bhāvābhāvobhayāśrayaḥ//
63. Chapter V.
64. Vide *Pramāṇavārtika*, II.164–73; III.38ff.
65. I.5.
66. Cf. *Pramāṇavārtika*, III.40: sarve bhāvāḥ svabhāvena svasvabhāvavyavasthiteḥ/ svabhāvaparabhāvābhyāṃ yasmād vyāvṛttibhāginaḥ//
67. Cf. Ibid., *kā*. 41: tasmād yato yato 'rthānāṃ vyāvṛttis tannibandhanāḥ/ jātibhedāḥ prakalpyante tad viśeṣāvagāhinaḥ//
68. Cf. Ibid., *kā*. 42.
69. Cf. Ibid., II.231: sarvato vinivṛttasya vinivṛttir yato yataḥ/ tad bhedonnitabhedā sā dharmiṇo 'nekarūpatā//
70. Cf. *Tattvasaṃgraha, kā*. 1010 and *Pañjikā* thereon. Also see Siderits, 'Was Śāntarakṣita a Positivist?' in Matilal, pp. 193–206.
71. Katsura, p. 172.

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Saṁvāda Gaṇita or Pratīka Ānvīkṣikī I

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Though logic, as contemporaneously understood, is not concerned with conditions of truth, we must consider these also in indigenous logic since *pramāṇas* serve as *models* for logical inferences. In order thus to formalize *saṁvāda*[1] and thence to develop *saṁvāda gaṇita*, we shall have to proceed in two steps. In the first step, we formalize *pramāṇakaraṇa* and in the second step *yuktikaraṇa*. The former is further threefold, namely *utsargakaraṇa*, *anumānakaraṇa* and *upamānakaraṇa*. That only true propositions occur in *saṁvāda* is ensured by *pramāṇa siddhi* which will thus provide basic rules of valid inference for obtaining true propositions only to serve as *hetuvākyas*. Once this is achieved, we proceed with *siddharūpa* and its concise form *yukti*[2] which help us to generate more/new true propositions by means of *pramāṇa prasūta* true *hetuvākyas*, and thus provide us further means of valid inference. Thus, given any complex argument/theory, we can identify each argument-unit in it and examine its validity by examining whether the accepted rules of inference have been correctly applied or not. This process of discovery of all the rules of valid inference occurring in *saṁvāda*—whether at the level of *pramāṇa* or at the level of *yukti*—is the process of *sphuṭikaraṇa* of *prākṛta saṁvāda* so that the awareness of and adherence to such rules would allow us to undertake *vyākṛta/sphuṭa saṁvāda* only, eliminating errors/fallacies and paradoxes known as *samvāda doṣas*.

Now, the propositions that occur in cosmological *saṁvāda* have either *samavāya* or *saṁyoga* or *tādātmya* or *sādṛśya* relations between their terms which will be symbolized as $\simeq, \cup, \supset, \subset$ respectively. True propositions will be put in conical brackets such as $<p \simeq q>$, $<p \cup q>$, etc. Just-universal propositions will be symbolized as $\cup$ and a *siddhānta* will be symbolized as S*. The evertrue *dṛṣṭānta/udāharaṇa vākya* is always a just-universal proposition, but since ever-true, will be marked with an

asterisk as U* or Q* etc. We can also symbolize a *siddhānta vākya* using above symbolization as <p ≃ q>*, <p ⊃ q>*, etc. Numeral universality will be symbolized as (x) and temporal universality as (y) so that a maximally universal proposition may be symbolized as:

$$(x)\ (y)\ \langle p \simeq q \rangle_{x,\,y},$$

which has to be read as, for example, 'For all numbers and all times, atoms are active.' It is thus expected that this manner of symbolizing propositions will preserve their structural features displaying how the terms in the propositions are *related*. The order of symbols in this notation has to be noted carefully.

Now, it has already been shown that the complete formal structure of a *siddharūpa* for, say, the relation ≃ obtaining between the terms of any maximally universal propositions is:

$$\begin{aligned}]\ (x)\ (y)\ (p \simeq g)_{xy} : \{\ & (x)\ (y)\ \langle p \simeq f \rangle_{xy} \\ & \langle U^* \simeq f \rangle\ .\ (\ (U^* \simeq f,\ g) \equiv \\ & (P \simeq f,\ g)\ )\ \} \vdash (x)\ (y)\ \langle p \simeq g \rangle_{xy} \end{aligned}$$

However, if we consider only particular propositions without any commitment to numeral or temporal universality and do not want to specify which relation obtains between the terms, then the general form of the above will be:

$$]P_g : \{P_f\ .\ U^*_f .\ (U^*_{fg} \equiv P_{fg})\} \vdash P_g,$$

where we remember the condition that whatever relation obtains between the terms of *hetuvākya* must also obtain in the *dṛṣṭānta/udāharaṇa vākya.* We shall here follow this simple notation in order to avoid complexity. Now, since the above *sthāpanā* is a well-established formula, it follows that given any P_f and U^*_f, a P_g can be derived from these:

$$P_f\ .\ U^*_f \vdash P_g,$$

which then is the concise form of the *yukti* or argument-unit.

1. Considering *pramāṇakaraṇa*, first, it is fourfold, namely *pratyakśa*, *anumāna*, *śabda* and *upamāna*. By means of *pratyakśa*, we obtain particular, just-universal and maximally universal propositions that are true, employing the threefold *utsargakaraṇa* method of *siddhi*. Thus:
(i) *Ekaviṣaya - bahupṛekṣaka - utsargakaraṇa*:

$$\begin{array}{l} (P_{f1}) \\ (P_{f2}) \\ \text{----------} \\ \text{----------} \\ \hline \therefore\ \langle P_f \rangle \end{array}$$

This gives us the rule of inference,

$$P_{f1}\ .\ P_{f2}\ .\ P_{f3}\ \text{- - - - - - -}\ P_{fn} \vdash P_f \qquad (1)$$

By this rule, a statement or *kathana* is transformed into a proposition or *vākya*.

(ii) *Bahuviṣaya - ekaprekṣaka - utsargakaraṇa*:

$$\begin{array}{l} P^1_f \\ P^2_f \\ \text{----------} \\ \text{----------} \\ \hline \therefore\ U\ \langle P_f \rangle \end{array}$$

This give us the rule of inference.

$$P^1_f\ .\ P^2_f\ .\ P^3_f\ \text{- - - -}\ P^n_f \vdash U(P_f) \qquad (2)$$

Here U works as an operator transforming particular propositions into just universal propositions or '*hai*' into '*hotā hai*'.

(iii) *Bahuviṣaya - bahuprekṣaka - utsargakaraṇa*:

$$\begin{array}{l} P^1_{f_1} \\ P^2_{f_2} \\ \text{----------} \\ \text{----------} \\ \hline \therefore\ (x)\ (y)\ \langle P_f \rangle_{xy} \end{array}$$

This provides the rule of inference.

$$P^1_{f_1}\ .\ P^2_{f_2}\ .\ P^3_{f_3}\ \text{- - - -}\ P^n_{f_n} \vdash (x)\ (y)\ \langle P_f \rangle_{xy} \qquad (3)$$

Here (x) (y) serve as operators that *add* '*sabhī*' to the *nigamanavākya* and transform *hai* into *hotā hai*. In all these inferences, the relation between terms of the premises is preserved in the terms of conclusion.

By means of *anumāna*, we obtain particular propositions only, whether of present or of past or of future; whether affirmative or counter-affirmative. Their truth is guaranteed as the method of *anumānakaraṇa* is employed for *siddhi*. This method employs *dṛṣṭānta/udāharaṇa* propositions as empirico-practically self-evident therefore ever-true propositions or practically well-demonstrated therefore well-established, true propositions. The latter, *udāharaṇa* propositions, are established by the above method of *utsargakaraṇa*. These are just-universal or maximally universal propositions, but we will employ the symbol for just-universality only for our purpose. There are twelve kinds of *anumānas*; *sāmānyatodṛṣṭa*, *pūrvavat* and *śeṣavat*, *tādātmya* and *anupalabdhi*, the first three have threefold divisions each, namely, *kevalānvayī, kevalavyatirekī* and *anvayavyatirekī*; the fourth has only twofold division, namely, *kevalānvayī* and *anvayavyatirekī*.

In *sāmānyatodṛṣṭa*, *pūrvavat* and *śeṣavata,* the inference is made from two premises: *hetuvākya* and *dṛṣṭānta/udāharaṇavākya. Hetuvākya* represents some perceptual evidence, its truth to be ensured by the method of *utsarga-karaṇa*. D/U-*vākya* is empirico-practically self evident or practically established and its terms have the same relation as the terms of *hetuvākyas* have. The *nigamanavākya* has the same *uddeśya* term as that of *hetuvākya* but a new *vidheya* term entirely absent in the premises. Thus, the *new knowledge* here consists in the implicit becoming the explicit by means of D/U-*vākya* which *suggests* or *triggers* a transition towards the conclusion.

(iv) *Sāmānyatodṛṣṭa anumānakaraṇa*:

$$\frac{P_f \quad U_f^*}{\therefore P_g}$$

Here U_f^* suggests a suffix g such as agni in *chulhā*. The relation between f and g is a *samavāya* relation. We say that U_f^* *transforms* the suffix f of P_f into suffix g of P_g. This gives the rule of inference.

$$P_f \cdot U_f^* \vdash P_g \qquad (4)$$

The above is *kevalānvayī* variety, the other two will be:

$$\frac{P_f \quad \sim U_f^*}{\therefore P_g}$$

which gives the rule of inference,

$$P_f \cdot \sim U_f^* \vdash P_g \qquad (5)$$

and

$$\frac{\sim P_f \quad \sim U_f^*}{\therefore \sim P_g}$$

which gives the rule of inference,

$$\sim P_f \cdot \sim U_f^* \vdash P_g \qquad (6)$$

(v) *Pūrvavat anumānakaraṇa*:

This inference is from present occurrence to future occurrence so that from a proposition true at time y_1, we infer a proposition true at time y_2.

$$\frac{\langle P_f \rangle y_1 \quad U_f^*}{\therefore \langle P_g \rangle y_2}$$

which provides the rule of inference,

$$\langle P_f \rangle y_1 \cdot U_f^* \vdash \langle P_g \rangle y_2 \qquad (7)$$

This sort of inference is usually employed in weather forecasting.

(vi) *Śeṣavat anumānakaraṇa*:

This inference is from present occurrence to past occurrence so that from a proposition true at time y, we infer a proposition true at time y' in the past.

$$\frac{\langle P_f \rangle_y \quad U_f^{*\prime}}{\therefore \langle P_f \rangle_{y'}}$$

This provides the rule of inference,

$$<P_f>_y \cdot U^*_f \vdash <P_g>_y, \qquad (8)$$

This sort of inference is usually employed in archaeology. The other two varieties of both these types of inferences will be exactly like (5) and (6).

(vii) *Tādātmyānumānakaraṇa*:
In *tādātmyānumāna* also two premises yield a conclusion. The *hetuvākya* in it is a perceptual evidence such as '*yah neem hai*', its truth to be ensured by *utsargakaraṇa*. The D/U-*vākya* is also a just-universal proposition, the terms of which have a *tādātmya* relation only. This means that in the *hetuvākya* also the terms have the same relation, though it is not explicit in elementary propositions such as '*yah sinśipā hai*'. These propositions are therefore required to be restructured for avoiding ambiguity, which can be achieved by introducing a constant term such as '*yeh viṣaya*' or '*yah vastu*'. We symbolize this constant as A^1, where the number '1' marks a singularity. Thus, '*yah viṣaya sinśipā hai, sinśipā vṛkśa hotā hai, atah yah viṣaya vṛkśa hai*' can be symbolized as:

$$\frac{A^1_s \quad U^*(S_v)}{\therefore <A^1_v>}$$

which provides the rule of inference,

$$A^1_s \cdot U^*(S_v) \vdash A^1_v \qquad (9)$$

In the other kind such as '*yah neem kā vṛkśa hai, vṛkśa auṣadhi hote hain, atah yah neem auṣadhi hai*', the constant disappears, only number remains and a usual *uddesya* term appears in both *hetuvākya* and *nigamanavākya*. In the *anvaya vyatirekī* variety such as '*yah neem kā vṛkśa hai, vṛkśa alatā hote hain, atah yah neem alatā hai*' the schema will be,

$$\frac{M^1_v \quad U^*(V^-_1)}{\therefore M^1_1}$$

which, when unpacked, becomes

$$\frac{(M \supset v)^1 \quad U^*(V \supset 1)}{\therefore <M \supset 1>^1}$$

We have to note here that the suffix of *hetuvākya itself becomes* the base of U/D-*vākya* and the suffix of U/D-*vākya* and the base of *hetuvākya* are preserved in the *nigamana vākya*, the *yukti* yielding to the criticism that no new suffix has been generated therefore no new knowledge has been attained in such inference, a *petitio principii*. This, however, provides a rule of inference as,

$$M^1_v \cdot U^*(V^-_1) \vdash M^1 \qquad (10)$$

(viii) *Anupalabdhi anumānakaraṇa*:
Anupalabdhi can be interpreted in two ways: '*Dṛśyapaṭal men ghaṭajñāna nahīn hai, atah dṛśyapaṭal men ghaṭa kā abhāva hai*', and '*yahān koī bhī vṛkśa nahīn hai, sinśipā vṛkśa hote hain; atah yahān sinśipā nahīn hai*'. Now, the terms *dṛśyapaṭal* and *yahān* are synonyms and refer to a region of space or ground or area of vision. These are therefore to be treated as constant symbolized here as T^1. The 'term' *jñāna* in *ghaṭajñāna* is also constant and we symbolize it by a dash. Thus, the schema for former inference is

$$\frac{\sim T^1_{g'}}{\therefore T^1_{g_o}}$$

The suffix 'o' in this schema is also a constant and refers to the term *abhāva*. In such schema the only premise is a negative proposition and the marked suffix of the premise transforms into a suffix with suffix 'o'. In the second kind of inference, the *hetuvākya* is a numerally universal negative proposition, so that,

$$\frac{\sim (x)\,(T^1_v)_x \quad U^*(S_v)}{\therefore \sim <T^1_s>},$$

in which the conclusion could as well be T_{so} so that in this symbolism $\sim T^1_s = T^1_{so}$. The premises in this schema have the same suffix and the base of D/U-*vākya* becomes the suffix of the conclusion. Since the rule that the same relation must obtain between the terms of D/U-*vākya* as this obtains in *hetuvākyas,* we interpret T^1_v as a proposition in which there is a relation of *tādātmya* between *dṛśyapaṭal* and the object, namely *vṛkśa.* Thus the two rules of inference for these inferences are:

$$T^1_{g\bar{L}} \vdash T^1_{go} \tag{11}$$

$$\text{and} \quad \sim (x)\,(T^1_v)_x \,.\, U^*\,(S_v) \vdash \sim T^1_s \tag{12}$$

This kind of inference is employed in criminal investigation and legal proceedings.

(ix) *Śabdakaraṇa*:
No schema is possible in *śabda pramāṇa* since it is claimed to be knowledge acquired by the seer by inner seeing or *sākśāt.* However, we can employ the method of *utsargakaraṇa* for its *siddhi* wherever there is agreement about truth of certain propositions *amongst the seers.* Thus

$$\frac{\begin{array}{c}<P^1_{f_1}>\\ <P^2_{f_2}>\\ \text{- - - - - - - -}\\ \text{- - - - - - - -}\end{array}}{<<P_f>>}$$

where the *śabda* proposition will always be symbolized by double conical brackets.

(x) *Upamānakaraṇa*:
In *upamāna*, we conceive of a *sādṛśya* relation such as '*yah paśu gāya-sadṛśa hai*'. The D/U-*vākya* is here replaced by a '*śrutānta*', that is, knowledge acquired by communication from knowledgeable men, again and again. This also admits of a *lokavādī* view and even allows of a 'heard' self-evidentness in addition to empirico-practical self-evidentness. This is the most we can allow in matters of valid inference. We will use the same

symbol for this kind of '*śrutānta*' as that for D/U-*vākya.* Thus, for example, '*yah paśu gāya-sadṛśya hai, gavay gāya-sadṛśa hotā hai; atah yah paśu gavay hai*', can be symbolized as:

$$\frac{\begin{array}{c}P^1_g\\ U^*_g\end{array}}{\therefore \quad <P^1_u>}$$

Here, again, we may notice that no new *vidheya* is discovered in the conclusion, only the *uddeśya* of D/U-*vākya* becomes the *vidheya* of conclusion in which the *uddeśya* of *hetuvākya* is preserved. If we unpack this, we will find that although the relations between terms of premises are the same, that of conclusion is a *tādātmya* relation which may though be claimed to be a new discovery not present in the premises. This yields the rule of inference.

$$P^1_g \,.\, U^*_g \vdash P^1_u \tag{13}$$

These schemas and rules of inference may be said to constitute *formal epistemology* or *pṛamāṇa gaṇita* forming the foundation of formal/symbolic logic. Here we have laid down the formal *conditions* of *generation* of *true* propositions by analysis of human processes of knowing and making explicit/*sphuṭa* the underlying natural universal principles true for all humans without exception in *all* situations of knowing. This part then ensures the conditions of truth of propositions. However, it also involves the notion of *validity* in so far as the conclusion is claimed to be *inferred validly* from the premises, though this validity is claimed to be only for knowledge of present or past or future but not for tritemporal propositions. Even this sort of validity has to be strengthened by means of the method of criticism and defense. Thus, in all the above rules of inference, we have considered only the process of *sthāpanā* which is however incomplete without the notion of *pṛatisthāpanā* in indigenous logic. The general rule that works in *pṛatisthāpanā* is that it involves counter-*hetuvākya* and counter-D/U-*vākya* as premises and counter-*nigamanavākya* as conclusion. We can thus express *pṛatisthāpanā* in general as:

$$]P_{\bar{g}}: \{P_{\bar{f}} \,.\, Q^*_{\bar{f}} \,.\, (Q^*_{f\bar{g}})\} \vdash P_{\bar{g}}$$

where the bar on the *vidheya* term indicates that it is complementary of the original term in *sthāpanā*, the *uddeśya* term remaining the same as that in *sthapanā*. The *uddeśya* term of D/U-*vākya* must also change in that a counter-*dṛṣṭānta* or counter-*udāharaṇa* is supposed to be advanced. All other conditions in this sort of *pratisthāpanā* remain the same.

2. *Prākṛta saṁvāda* having been analyzed, its underlying universal principles having been discovered and symbolized, it is with the formalization of *yukti* that *vyākaṛat saṁvāda* unfolds in all its beauty. Now, we have seen that true propositions, whether singular or particular, affirmative or negative, just-universal or maximally-universal, can be generated by employing jointly the methods of inference known as *utsargakaraṇa*, *anumānakaraṇa* and *upamānakaraṇa*. These methods of *siddhi* of true propositions thus become available to us as *models* for general methods of *siddhi* of any proposition whatsoever. The purpose of the method of valid inference is to lay down the conditions of validity of *yukti* given that the premises are true, and thus to generate chiefly the just-universal and/or cosmically universal propositions that are true either within a knowledge-system or true inter-systemically, therefore ever-true. It is thus hoped that if the models of *pṛamāna gaṇita* are accepted as adequate for inference and if the method of *sthāpanā-pṛatisthāpanā* is employed for evaluating the validity of inference, then true premises will yield true conclusions which, upon evaluation, will be established as *siddhāntas*. Thus, the purpose of *saṁvāda* is chiefly the discovery of tritemporal (or temporally universal) as well as numerally universal *siddhāntas* representing the underlying regularity of things, processes, properties etc. Such discovery of regularity *explains* to us *why* a certain set of facts is so and not otherwise. *Siddharūpa* seems to blur this distinction between *explanation* and *discovery*, whereas *yukti* makes it quite explicit. Thus, for example, when it is held that '*parvaton para dhuān hota hai/∴ parvaton para agni hotī hai*' we make the *discovery* of a fact on grounds of another fact; whereas when we argue the other way, namely '*parvaton para agni hotī hai/∴ parvaton para dhuān hotā hai*', we explain why the fact is so. *Yuktikaraṇa* thus aims to grasp the cosmos in entirety by discovering/establishing facts which are increasingly universal and then to *explain* subsequently why the facts are so and not otherwise. [Sāṁkhya Siddhānta discovers the fact of *puruṣa-pṛkṛti-samyoga* from the fact of suffering and thus *explains* subsequently why is there suffering at all.]

Since *utsargakaraṇa*, *anumānakaraṇa* and *upamānakaraṇa* have been identified as major methods of *siddhi*, we can model the *yuktis* on these for inferring conclusions. Thus, if we model a *yukti* on *utsargakaraṇa*, we can derive propositions of higher universality from premises of lower universality. [This kind of *yukti* was solely the discovery of Sāṁkhya theorisers and Pānini's Vyākaraṇa could have served as a model for them.] We can thus go on employing this method till we reach cosmically universal laws or ultimately general *siddhāntas* underlying the cosmos as a whole. For example, in the schema, '*Ghata kā mittī upādāna hotā hai, paṭa kā tantu upādāna hotā hai ādi, atah kṛtavastuon kā upādāna hotā hai*', the conclusion is suggestive of '*kāryon ke kāraṇa hote hain*', and can be symbolized as:

$$\frac{\begin{array}{c} U(G_{u_n}) \\ U(P_{ut}) \\ \text{- - - - - - - - -} \\ \text{- - - - - - - - -} \end{array}}{\therefore U < \hat{V}_u >}$$

Where the hat ^ symbolizes a higher universal. Thus, in such inferences the *uddeśya* terms of the premises are universals of lower generality while the *uddeśya* term of the conclusion is a universal of higher generality than that of the former. This, then provides the rule of inference,

$$U(G_{um}) \,.\, U(P_{ut}) \text{ - - - - - - - - - } \vdash U < \hat{V}_u > \qquad (14)$$

In another successive *utsargakaraṇa* the conclusion of the above and other such true propositions can be employed as premises leading to a yet higher generality in the conclusion. Thus, for example, '*Kṛtavastuon kā upādāna hotā hai, vyutpanna vastuon kā upādāna hotā hai, ādi; atah hareka kārya kā kāraṇa hotā hai*', which can be symbolized as:

$$\frac{\begin{array}{c} U(V_u) \\ U(P_u) \\ \text{- - - - - - - - - -} \\ \text{- - - - - - - - - -} \end{array}}{\therefore (x)\,(y) < \hat{K}_{\hat{N}} >_{xy}}$$

where we shall symbolize K and N as constants for *kārya* and *kāraṇa* respectively. Here both the *uddeśya* and *vidheya* terms of the conclusion are a degree higher in generality than the terms of the premises. This provides the rule of inference,

$$U(V_u) \,.\, (P_u) \text{ - - - - - - } \vdash (x)\,(y) < \hat{K}_{\hat{N}} >_{xy} \qquad (15)$$

In the *yuktis* modeled on *anumānakaraṇa*, the most important concern those modeled on *sāmānyatodṛṣṭa*, *tādātmya* and *anupalabdhi*. In all such *yuktis*, the *hetuvākya* and D/U-*vākya* are just-universal or maximally universal propositions; or a *siddhānta* can be employed in place of D/U-*vākya*. The conclusion of these *yuktis* is also a just-universal or maximally universal proposition (or, sometimes an existential/*apavāda* proposition). All other conditions of validity are the same as in *pramāṇa gaṇita*.

Clearly, for a *yukti*, the *hetuvākya* need not always be a particular perceptual evidence but can also be a true proposition derived from another *yukti* or the one obtained by *utsargakaraṇa*. Similarly, the D/U-*vākya* need not always be an empirico-practically self-evident proposition but can be an empirically established 'law'; or a cosmically universal *siddhānta* established as true or accepted as ever-true on grounds of *śabdapramāṇa*.

Now, the *yuktis* by which *puruṣa siddhānta* has been established in Sāmkhya Siddhānta are modeled on *sāmānyatodṛṣṭānumānakaraṇa* and can serve as examples. '*Deha kā upādāna hotā hai, jaise vṛkśa kā bīja-upādāna hotā hai, atah deha kṛtavastu hotī hai*'; '*kṛtvastuon kā bhoktā hotā hai, jaise ghaṭapaṭādi kā bhoktā hotā hai; atah deha kā bhoktā hotā hai*'. Both these *yuktis* do not have the same structure and the latter can be symbolized as:

$$\frac{\begin{array}{c} U(F_g) \\ U^*\ (P_g) \end{array}}{\therefore U < F_g'' >}$$

It is to be noted that in this *yukti* the *vidheya* term of the premises is preserved in the conclusion, not the *uddeśya* term of the *hetuvākya*, which recedes to a term '*deha*' of lower level of generality than the term '*kṛtavastu*'. The inference is thus perfectly valid and gives the rule:

$$U(F_g) \,.\, U^*(P_g) \vdash U < F_g' > \qquad (16)$$

The former one has the same structure as that of (4) except that the propositions are just-universal. Thus,

$$\frac{\begin{array}{c} U(P_g) \\ \cdot\ U^*_g \end{array}}{\therefore\ U < P_f >}$$

providing the rule of inference,

$$U(P_g) \,.\, U^*_g \vdash U < P_f > \qquad (17)$$

The same rules will have different operators when the premises or the conclusion are numerally universal or temporally universal or maximally universal providing many permutations and combination.

The latter of the above two *yuktis* can also be modeled on *tādātmy-ānumānakaraṇa* and will be '*kṛtavastuon kā bhoktā hotā hai, deha kṛtavastu hotī hai; atah deha kā bhoktā hotā hai*'. This can be symbolized as:

$$\frac{\begin{array}{c} U(P_g) \\ U^*\ (D_p) \end{array}}{\therefore\ U < D_g >}$$

which provides the rule of inference,

$$U(P_g) \,.\, U^*(D_p) \vdash U(D_g) \qquad (18)$$

The operators U and U* can be replaced by operators of number and time or *siddhānta* operator as the situation demands.

A *yukti* modeled on *anupalabdhi* may be as follows: '*Abhiyukta kā koī bhī aparādha-sākśya nahīn hotā, atah abhiyukta niraparādha hotā hai*'. Or, another may be '*Nṛśṛṅga kā jñāna nahīn hotā, atah nṛśṛṅga kā abhāva hotā hai*'. Or, a more pertinent one for modern science will be, '*Kucha kalpanāprasūta vastuon kā pramāṇa nahīn hotā; atah kucha kalpanāprasūta vastuon kā abhāva hotā hai*'. These examples clearly underline the importance of *yuktis* modeled on *anupalabdhi*. Each one of these *yuktis* have slightly variant structure. Thus, the first can be symbolized as:

$$\sim (x)\,(B_{p'})_x$$

$$\therefore\ U(B_{\bar{p}})$$

where $\bar{p}$ is a complementary of p. This gives the rule

$$\sim (x)\,(B_{p'})_x \vdash U(B_{\bar{p}}) \qquad (19)$$

The second can be symbolized as,

$$\sim U(M_j)$$

$$\therefore U(M_o)$$

where the constant 'o' has been already introduced for *abhāva* and the constant 'j' is for *jñāna*. This gives the rule:

$$\sim U(M_j) \vdash U(M_o) \qquad (20)$$

The third one may be symbolized as,

$$\sim (\exists_x)\,(P_m)_x$$

$$\therefore (\exists_x)\,(P_o)_x$$

which gives the rule of inference,

$$\sim (\exists_x)\,(P_m) \vdash (\exists_x)\,(P_o)_x \qquad (21)$$

It may be noted that in all these cases the *uddeśya* term of the premise is preserved in the conclusion and the *vidheya* term is either a complementary of the *vidheya* of the premise or it is the constant 'o'.

Yuktis can be modeled on *upamānakaraṇa* also and have significance for modern science as well. These types were also employed by Sāṁkhya Siddhānta first. Thus, for example, '*Pṛkṛti nartakī-sadṛaśa hotī hai aur puruṣa darśaka-sadṛaśa hotā hai, darśaka va nartakī paraspar nivṛtta hote hain; atah puruṣa va pṛkṛti paraspara nivṛtta hote hain*'. Again, '*Pṛadhāna gāya-sadṛaśa hotā hai aur puruṣa bachaḍe-sadṛaśa hotā hai, gāya men bachaḍe ke liye swatahkśīra-pṛvṛtti hotī hai; atah pṛadhāna men puruṣa ke liye swatah triguṇapṛvṛtti hotī hai*'. [It is important to note that Sāṁkhya Siddhānta does not enumerate *upamānapṛamāṇa* but employs it in knowledge-systematization presuming that it is explicable within the *tripramāṇa* principle. Moreover, the structure of second *yukti* makes

it clear that the term *pṛadhāna* is not a synonym of *pṛkṛti* but of *avyakta* for the *puruṣa* cannot be born of *pṛkṛti* as a calf is born of a cow, but it can be said to be 'born' of *avyakta* in a certain sense. This, incidentally, is the maximum that can be said about *avyakta* for illuminating what sort of 'ultimate' it is,] A more instructive and simpler *yukti* modeled on *upamāna* is: '*Nābhika būnda-sadṛaśa hotā hai, būnda-sadṛaśa-vastuon kā swabhāravikhaṇḍana hotā hai; atah nābhika kā swabhāravikhaṇḍana hotā hai*'. This example underlines the significance of this type of *yukti* for it suggests models for theorization. This later type of *yukti* can be symbolized as:

$$U(H_b)$$
$$U^*(B_g)$$

$$\therefore\ U(H_g)$$

which is a structure very much like that of *tādātmya yukti* except that here the terms of premises have *sādṛśya* relation and the conclusion has the terms related by *samavāya*. This gives the rule of inference,

$$U(H_b)\ .\ U^*(B_g) \vdash U(H_g) \qquad (22)$$

The first Sāmkhya *yukti* has three premises, the first two of which are *hetuvākyas* and the third a D/U-*vākya*. The terms of both the *hetuvākyas* have *sādṛśya* relation but not the terms of D/U-*vākya* which then violates the rule that the terms of D/U-*vākya* must have the same relation as the terms of *hetuvākya*. This problem arises in (22) above also but the D/U-*vākya* there may be interpreted to read '*swabhāra vikhaṇḍanīya vastuen būnda-sadṛaśa hotī hain*', which will not affect the structure of *yukti* appreciably. Similarly, in the second Sāmkhya *yukti*, the D/U-*vākya* is entirely a different sort of proposition involving the notion of *purpose* or *telos* for which the present symbolism is not suited, unless we assume that just as there exists a *samavāya* relation between *kāraṇa* and *kārya*, so too it exists between *kārya* and *pṛayojana*. These *Sāṁkhyana 'yuktis'* are then perhaps not meant to be *yuktis* but only illustrative analogies for illuminating about the situation.

All the above rules of inference are of *kevalānvayī* variety only and if *kevalavyatirekī* and *anvayavyatirekī* variations are also considered wherever possible, more rules will be possible. Further, the *pṛatisthāpanā* form of these *yuktis* will involve the same sort of symbolism as indicated earlier.

Nyāya; Realist or Idealist: Is the debate ended, the argument concluded?

Nyāya, by common consent is regarded as a realist system *par excellence* by everybody. In fact, it is contended that if any philosophical system can be described as 'realist' at all, then Nyāya is one. The queries raised by me under the above heading in two parts in *JICPR* volumes [(i) 'Nyāya: Realist or Idealist?' [XII (1), pp. 161–3]; (ii) 'Can Navya-Nyāya make distinction between sense and reference?' [XII (3), p. 157)] do not seem to have disturbed the self-evident, axiomatic belief in the characterization of Nyāya as mentioned above. Normally, when five such knowledgeable persons reject the very possibility of doubting such a characterization, one should accept that the grounds of one's 'doubting' had no foundation at all.

Yet, there seems to have been some slight shakings of the foundation of the belief in the responses of all these Naiyāyikas, though expressed in different ways. Professor Chakraborty, for example, concedes, 'The canonical western characterization of realism as the thesis that objects exist mind-independently is difficult to apply to Nyāya' [*JICPR*, XII (2), p. 154]. And, Professor N.S. Dravid explicitly admits that the question raised about the compatibility of the requirement of '*abhidheyatva*' with the definition of perception as *avyapadeśyam* given in N.S. 1.1.4. 'is an important one and deserves some serious thought.' Both these admissions are, surprisingly, questioned; the former by Dr. Ramesh Kr. Sharma and the latter by Arindam Chakraborty. But, though there seems to be a difference of opinion amongst the Naiyāyikas on the issue of the relevance, significance and importance of the questions raised, the 'difference' itself is indicative of the fact that it is not easy to determine what exactly is the Nyāya position in respect of the issue concerned.

The different and divergent points raised in the responses to the simple question raised by me suggest that the House of Nyāya is divided in itself, and that the idea of a unique, unambiguous position of Nyāya is a myth, sustained only by the fact that scholars and students have unquestioningly accepted what is purveyed in the name of Nyāya in the textbooks on the subject. Nyāya is not, and cannot be, a monolith system as is suggested by

all those who write on it, including the 'five experts' who have chosen to respond to the questions raised by me. To give a few examples from the comments of these well-known 'authorities' on Nyāya, Professor Mohanty is firmly of the view that Nyāya subscribes to the 'extensionality of the relation' that obtains between 'existence' and 'knowability' [*JICPR*, XIII (1), p. 167]. Professor Dravid, on the other hand, believes that at least as far as '"*sat, prameya* and *abhidheya*" are concerned, they are supposed to have identical denotations, though the connotations of these words differ from each other' [*JICPR*, XIII (1), p. 169].

These two positions seem, at least *prima facie*, to be opposed to each other. It is not clear whether Mohanty subscribes to the generalized position that Nyāya does not, and cannot, in principle accept 'intensional relations' in its system and that all relations have to be necessarily extensional. There is the related problem whether a system which admits only extensional relations can ever have any 'intensional relation' in it.

The problem, however, is not confined to relations alone. The deeper question relates to the issue whether Nyāya admits extensional definitions alone or it also admits definitions that are 'intensional' in nature. Professor Dravid in his discussion of the issue has explicitly brought in the concepts of 'connotation' and 'denotation' and suggested that while '*sat*', '*prameya*' and '*abhidheya*' have different connotations, they have the same denotation. But once the idea of 'connotation' is accepted in any system, it cannot have pure 'extensional' relations or definitions in it. And, if the extensional relations and definitions are rejected in a system, it is difficult to see how it can be realist in character.

Nyāya, as is well-known, is pre-eminently concerned with considerations of determining the exact *lakṣaṇa* of anything and if it is so then one cannot understand how it can be regarded as realist in the sense in which the postulation of extensional relations or definitions would entail it. All attempts at the correct establishment of the *lakṣaṇa* of anything suffer from either an *ativyāpti doṣa* or *avyāpti doṣa* and it is extremely difficult to avoid either of these and reach a 'definition' which will capture the true nature of the object concerned. Professor Mohanty has argued that there is a *vyāpti* 'between 'existence and knowability' and that this '*vyāpti*' is 'extensional' in character. Not only this, he has explicitly stated that, 'In the celebrated case of smoke and fire, the *vyāpti* is not to be understood intensionally as a necessary relation, but rather extensionally as a relation of mere co-presence' (p. 167). This, if correct, will raise serious problems regarding the long discussion

about the exact definition of *vyāpti* in the Nyāya tradition. Mohanty knows, as well as everybody else, that successive definitions of *vyāpti* given before Gaṅgeśa were found to be inadequate and the issue regarding the formulation of the exact nature of the *vyāpti* was not closed even after him. If *vyāpti* were merely co-presence, then it will be difficult to understand how these definitions of *vyāpti* were found to be inadequate, and that the dispute about the correct definition of *vyāpti* continued in the Nyāya tradition.

It may be said that the inadequacy of the definitions were primarily because of their inapplicability in those cases where the object concerned was either *Kevalānvayī* or *Kevalavyatirekī*, that is, where it was always present or always absent. But, these are exceptional situations and normally the relation of *vyāpti* is established on the basis of what Mill calls 'the joint method of agreement and difference'.

Mohanty has suggested that there is an extensional *vyāpti* relation between knowability and existence. But how is this *vyāpti* established? By assertion only, or by an examination of the cases where *anvaya vyatireka saṁbandha* is found among them. For the latter, one will have to have an independent *lakṣaṇa* or criterion of what existence is and a *separate* one for what knowability is. But, as far as I know, such a *Lakṣaṇa* has not been provided by the Nyāya thinkers and, even if it were to be provided, it will be difficult to see how one can find 'existence' and 'knowability' both present and absent in order to establish a *vyāpti* relation between them. Not only this, 'knowability' is a strange characteristic as it can only be defined in terms of a possibility, and not an actuality. If this is accepted, then it will be difficult to see how one could determine its absence anywhere. If something is 'known' then it certainly must have been 'knowable', but if it is not known then one can only say that it is 'knowable' on grounds of faith alone.

It is, of course, known that it is extremely difficult, if not impossible, to establish *vyāpti* between objects or entities which are *Kevalānvayī* or *Kevalavyatirekī*. As both 'existence' and 'knowability' are *kevalānvayī*, at least on the usual understanding of the Nyāya position in this context, only Mohanty will know how to establish *vyāpti* relation between them. The solution, of course, is easy. The relation between 'existence' and 'knowability' can be established by treating them as being analytically involved or implied by each other. This, however, will destroy the 'extensionality' of the relationship between them and make it 'intensional' or even 'definitional' which will not, probably, be acceptable to Naiyāyika, including Mohanty.

The term 'existence' itself is extremely ambiguous, especially in the context of the discussion about Nyāya. Does it mean *sattā* and, if so, then it will be confined only to the first three *padārthas* in the Vaiśeṣika list, or does it mean *padārtha*? And, if so, it will apply to all the six *padārthas* originally mentioned in the Vaiśeṣika Sūtras. However, even in this case, there will always be a problem whether it covers only the specific *dravyas*, *guṇas*, *karmas* etc. which were mentioned by Kaṇāda in his Vaiśeṣika Sūtras or it can be taken to include even those which were added to the list later by subsequent thinkers. Praśastapāda's addition to the list of *guṇas* is well-known, but there are others who have done the same in respect of other *padārthas*. *Sāmānya*, for example, is supposed to give rise to *jāti* but, as everyone knows, Udayana feels the necessity of formulating criteria for deciding between genuine universals and pseudo-universals. There are, thus, *sāmānyas* which do not, and cannot, give rise to *jāti* as they suffer from what he called *jātibādhaka* characteristics. The addition of *abhāva* as a *padārtha* presumably by Śivāditya around the 10th century adds problems of its own, as formerly, *padārthas* were supposed to be either *sattā-rūpa* or *bhāva-rūpa* only. But when *abhāva* was accepted as a *padārtha*, it could not be treated either as *sattā* or as a *bhāva*.

Besides these, the case of Raghunātha Śiromaṇi is well-known. We need not elaborate the point. In case the term 'existence' refers to those *padārthas* which have *sattā* and *sattā* alone in the Nyāya-Vaiśeṣika framework then they alone shall be knowable. In case the term covers or refers to all the *padārthas* then the dispute about the *padārthas* will also be a dispute about that which is knowable. Once this is accepted, the so-called *vyāpti* relation postulated between existence and knowability will also become flexible and shifting in character. Not only this, as the number and types of *padārthas* will increase or decrease, that which was supposed to be knowable will cease to be 'knowable' or that which was not knowable, become 'knowable' by virtue of the very fact that it has now become a *padārtha* and hence accepted as existent in the system. The term 'existence' is also generally contrasted with the term 'real' and it is not clear whether Mohanty accepts this distinction or not. For, in case he does, he will not probably accept the *vyāpti* between the real and knowable as all that is real does not exist in the usual sense in which the term 'existence' is generally understood.

The term 'knowable' is even stranger than 'existence' as it connotes, or rather denotes (to remain within the extensionalist framework of Mohanty's thought) something that is a possibility, or a 'dispositional' property, which

may or may not be actualized. 'Possibilities' or even 'dispositional properties', as Mohanty very well knows, are strange 'properties'. They are not like the usual properties such as 'red' or 'blue' and give rise to the paradoxes of counter-factual conditionals. In the present context, however, the problem is a different one and relates to the question as to how one may establish a *vyāpti* relation between something that is 'actual' and something else which is only 'possible', assuming that existence is something actual.

The establishment of a *vyāpti* relation between the 'actual' and the 'possible' may be left to the Naiyāyikas, who, I am sure, will be able to solve the problem with all the ingenuity which they have developed over the centuries. But, in the context of the question relating to the issue whether Nyāya is 'realist' or 'idealist', the distinction between 'known' and 'knowable' has assumed a central importance which is of a different kind. Dr. Ramesh Kumar Sharma, in one of the most clear presentations of the subject, has questioned the transition from the perceived to the perceivable in the classical Berkeleyan formulation and from the perceivable to knowable to bring it closer to Nyāya formulation. From 'to be is to be perceivable' to 'to be is to be perceived', and from that to 'to be is to be knowable' is the subtle, transpositional trick or deception that I am supposed to be guilty of. But, surprisingly, his own conclusion is that this amalgamation of bringing together the position of Berkeley and Nyāya makes Berkeley a realist rather than Nyāya 'idealist'. He writes '... if Berkeley and Nyāya are thought to have been brought together on a common platform, this platform, I am afraid, is a realistic one rather than an idealistic one' [*JICPR*, XIV (2), p. 141]. But, the main point is that both Berkeley and Nyāya can be brought together on a common platform by the inner logic of their positions and, I hope, Dr. Ramesh Kr. Sharma will admit that there is little point in giving any particular name to that position. If he wishes to call Berkeley a 'realist', I have no objection. But similarly, I hope, he will have no objection to my calling Nyāya 'idealist' in the sense in which Berkeley's position is designated as 'idealism' in the western philosophical tradition.

Unfortunately, the distinctions between the 'perceived' and 'perceivable' and the 'known' and 'knowable' which seem so crucial to Dr. Sharma disappear both in Berkeley and Nyāya when God appears on the scene. To God everything is 'known' and if we use Berkeley's phrase 'everything is perceived'. This has been roundly asserted by almost all those who have responded to my innocent query in the pages of the *JICPR*. But strangely, none of them appears to have seen that such an admission destroys the very

foundation of the contention that Nyāya is, in essentials, out-and-out realist, unless the so-called 'knownness' by God is itself treated as completely contingent in character. The crucial problem for the Nyāya theorist as well as for Berkeley is whether for God also things may be knowable and perceivable respectively but not known or perceived. In Berkeley this move is impossible as he argues for the reality of God on the ground that if something 'is', it has to be the object of some consciousness or other. And, as it is not so in the case of many objects as far as finite minds are concerned, one has to postulate an infinite consciousness to which they are eternally objects of its awareness. In Nyāya, on the other hand, God or *Īśwara* is brought in on cosmological grounds, that is, in the context of understanding the creation of the world. As far as the question of 'knownness' of the world is concerned it is, at least prima facie, contingent on whether it is known by someone or not. The 'someone' may be the finite mind of the Naiyāyika or anybody else, or the infinite mind of the creator who is termed as *Īśwara* in the Nyāya system. In Nyāya *Īśwara,* of course, cannot have a 'mind' in the strict Nyāya sense of the term and, if it were to have it, then it will know only one thing at a time and hence will not be able to know simultaneously all the things that are there as they cannot be co-present to his consciousness at the same time. There is the added problem of things or objects or events that have not yet taken place and hence cannot be known in the same way as those that have occurred or are in the present.

The straight way to realism would be to accept that there are, or may be, things which are not known or which need not necessarily be known by any finite or infinite mind. But this simple way does not seem acceptable to Nyāya and it tries to wriggle out of the difficulty by maintaining that things may not be known but that they are certainly 'knowable' in principle. It not only fights shy of but actively rejects the possibility that something may be 'unknowable' in fact or in principle as it does not want to subscribe to this hard core contention of realism in the strictly epistemological sense of the term. For it 'to be existent' or 'real' is to be *necessarily* knowable in principle. But what exactly is meant by saying that something is 'knowable' is never explained clearly.

To be 'knowable' in the Nyāya framework is to be a *Prameya*, that is 'to be known by a *pramāṇa*' or, in other words, it is to be an object either of *pratyakṣa* (perception), *anumāna* (inference), *upamāna* (analogy) or *śabda* (testimony). But amongst all these, *pratyakṣa* or perception or being object of the five human senses is primary and foundational in the sense that neither

anumāna, nor *upamāna* nor *śabda* can even be conceived of without reference to it. There may be some dispute or doubt about the relationship of *śabda* to *prayakṣa*, but there can be little doubt that *śabda* has, at least, to be heard or 'read' in order to be the means for the knowledge of that which it is supposed to convey authoritatively. There is, of course, the added problem if Gautama's definition of *śabda* is to be accepted that one has to *independently* know the character of the person whose *śabda* is to be authoritatively accepted. (आप्तोपदेशः शब्दः) And, if the *gloss* of Gautama on this *sūtra* is to be taken seriously then the very 'authoritativeness' of this *pramāṇa* will be compromised at least in the sense in which it has generally been understood in the context of the acceptance of the authority of the *Veda* in the Indian tradition. Gautama, as is well-known, gives the example of *Āyurveda* to illustrate the authoritativeness of the *śabda pramāṇa* subsumed under this special category. The authoritativeness of *Āyurveda,** however, is radically different from the way in which the *Vedas* or even the *Upniṣads* have been regarded in the tradition. *Āyurveda* is essentially fallible and the knowledge of its contents continues to grow in time, the two characteristics which are completely absent from the authority of the *śruti* which is regarded as both infallible and complete by everyone who accepts it.

The 'knowability', then, in terms of *pratyakṣa* or perception basically depends on the assumption that all 'existent' or 'real' has such a structure that it is graspable by the five human senses. In other words, the limits of human sensibility is the limit of the 'existent' or the 'real' world. To put it differently, such a construal of Nyāya position implies that the existent or the real world is intrinsically and essentially of such a nature that it not only *is*, but has to be, graspable or apprehensible by the human senses. Its structure, therefore, has to be of such a nature as to correspond with the structure of the human senses in order that it may be graspable by it. One 'knows' that human senses apprehend colour or sound *only* within a limited range and that beyond it they cannot perceive or apprehend whatever is, or may be, there.

These entities, which are intrinsically inapprehensible by the human senses, may be said to be the subject of inferential knowledge, but what then is the nature of this 'inferential knowledge' which gives us knowledge of entities or 'things' which are intrinsically ungraspable by the senses and therefore are incapable of being known by *pratyakṣa*. Such a knowledge may be said to be a 'knowledge' that can be known only by *anumāna* and never by *pratyakṣa*

*Nyāya Sūtra 2.1.68 (मन्त्रायुर्वेदप्रामाण्यवच्च तत्प्रामाण्यमाप्तप्रामाण्यात्)।

and though this may create some problems for Nyāya which believes in *pramāṇa saṁplava* on the one hand and the grounding of *vyāpti* on the basis of *anvaya* and *vyatireka* in terms of sensuously apprehensible experience, it will have to grant some sort of isomorphism between the structure of reason, that is *anumāna*, and the structure of that which can be known only through inferential knowledge and hence is regarded as 'existent' or 'real' in nature.

Dr. Ramesh Kr. Sharma has questioned the postulation of this isomorphism by suggesting that Hegel's famous formulation, 'The real is rational and the rational is real' should be understood not only in terms of cognitive rationality but also in terms of what may be called 'the moral intelligibility of the universe.' In other words, according to him the term 'rational' in Hegel's formulation includes both the axiological and the epistemological aspects and the term 'Reason' has both these aspects simultaneously included or involved in it. This may or may not be correct and Nyāya may or may not subscribe to it. But, there can hardly be any doubt that in the purely cognitive aspect, there has to be an isomorphism of structure between reason and that which is 'known', if the essential 'knowability' of the real in terms of reason is to be asserted. Dr. Sharma himself accepts this when he writes, 'There is no doubt that the eminent Hegelian equation of rationality and reality (or actuality) does presuppose some definite isomorphism between the two' [*JICPR*, XIV (2), p. 144]. But, according to him, Nyāya subscribes only to the half-contention of Hegel; it is silent about the other half, that is about the isomorphism of the valuation aspect of reason and the valuation aspect of reality. According to him, reason in the Hegelian sense involves both 'truth' and 'value' and Nyāya cannot, therefore, be said to subscribe to the Hegelian dictum 'Rational is real and Real is rational'. But this, according to him, will only be to deny the full blown characteristic of Hegelian idealism to Nyāya. It will still have to accept Nyāya as half-idealist in the Hegelian sense of the term and if we take the term 'Idealism' only in the epistemological sense of the term, Nyāya may have to be regarded as out-and-out Idealist on his own analysis.

But what is the 'structure' of *Buddhi* or reason in Nyāya which 'determines' the structure of that which is supposed to be 'knowable', as 'to be known' is, in Nyāya, to be known in the specific Nyāya way alone. Knowledge or *jñāna*, at least at the *savikalpaka* level, has to be linguistic in character. This, according to some, is what is meant by the term *abhidheyatva* in Nyāya. Now the structure of linguistic knowledge in Nyāya is said to be constituted by *anuyogi, pratiyogi* and the relation between them which is

termed as *saṁsargatā*. The complex unit formed by these three together is said to have a characteristic called *viṣayatā* which probably is an emergent property arising from the unique combination of these three elements. Strangely, the Nyāya has to postulate a *viṣayitā* to which the *viṣayatā* appears as an 'object' of cognition. But while *viṣayatā* is an emergent characteristic of the three elements mentioned above, it is not clear to which substantive entity *viṣayitā* belongs as a property, or whether it itself is a reflexively emergent property necessitated by the occurrence of *viṣayatā* which makes the knowledge complex at the first level into an 'object' giving it epistemic objectivity.

The problems here are far more complex than those which have been usually considered by Nyāya theorists who have written on this issue. Some of these will become apparent the moment we consider the case of *anuvyavasāya* or introspective reflection where the first order knowledge-complex consisting of *viṣayitā* and *viṣayatā* becomes an object of cognition and thus, where the complex formed by *viṣayitā* and *viṣayatā* itself becomes an 'object' of cognition giving it a new *viṣayatā* necessitating the postulation of another *viṣayitā* to which it becomes the object of knowledge. Some of these problems we have dealt with in our comment entitled 'Have the neo-naiyāyikas been leading us up the garden-path' [XV (2), pp. 121–41]. But in the present context, the more important question is as to how the postulation of these entities affects the contention that Nyāya is a realist system *par excellence*.

Professor Mohanty has roundly settled the issue by saying, 'There is no reason why a realistic ontology shall not admit entities that are either purely mental or "hybrid" ' [*JICPR*, XIII (1), p. 167]. This is an important declaration from the Nyāya camp and as Mohanty speaks with authority we may, for a moment, accept what Nyāya says in this regard. But what is a 'mental entity' and what exactly is a 'hybrid entity', which presumably is a *mixture* with something 'mental' and 'non-mental' in it? Normally the term 'mental' is taken to mean something that is not independent of consciousness or the *act* of knowing which apprehends it. It is in this sense that Locke regarded the secondary qualities as 'dependent' on mind and hence as not there, independently of it, in the physical world. The very notion of a 'mental entity', thus, involves that it will not have been there if there had been no 'mind' in the universe. Realism, at least in the sense in which it has been used in the western philosophical tradition, refers to those entities which will be there even if there were no 'mind' in the universe. The contention was that certain kinds of entities come into being just because of the fact that there was 'mind'

in the universe and these were regarded as 'subjective' in character. The realist epistemology was in search of those objects of knowledge which were completely independent and objective in the sense that they would be there even if there were no mind and hence will have no admixture of anything 'subjective' in them. The term 'mind' in this context means the same as 'consciousness' and the latter term can be substituted for the former without making any difference to the contention.

The term 'mental', thus, is systematically ambiguous in this context. It may mean (and perhaps it Mohanty wishes it to mean in this sense) that there are 'entities' which cannot be characterized as 'physical' in character and yet, which are objects of consciousness and which have their own nature demanding to be known in the same sense as the so-called physical objects do. It may be, parenthetically, pointed out that the term 'mental', as used in the English language, cannot literally convey what is meant by '*manas*' in Nyāya. In fact, it will be interesting to find the exact corresponding term in the Nyāya system which conveys the same meaning as is conveyed by the term 'mind' in the English language.

But, assuming that the term 'mental' refers to what is usually conveyed in the English language, three distinct points arise in respect of the entities that are considered to be purely 'mental'. First, what is their 'ontological' status in the scheme of Nyāya metaphysics and is that status the same as the one that is accorded to objects which are considered to be 'non-mental' or physical in character. Second, what is the status of these objects when they are not objects of cognition? In other words, do they continue to have 'existence' in the same way as ordinary objects of sense-perception are supposed to have? Third, do they possess an intersubjectively 'objective' character or are they 'objects' to an individual personal mind alone whose so-called 'existent' and objective character is not available to any other mind?

In case the mental entities are accorded a different ontological status than the ones given to non-mental objects, Nyāya would have to accept a radical dualism of the Cartesian type and face the well-known problem caused thereby. As for the second question, the mental entities cannot be regarded to have 'existence' in the same way as is accorded to physical objects and hence, in case they are considered to 'exist' even after they have ceased to be the objects of apprehension by some mind, they will have to be given a 'subsistent' status on the lines which Russell at one time argued for in the case of such entities. This, of course, would save Nyāya realism, but obviously do so in a Pickwickean manner. And, in case one grants them 'objectivity' only

in relation to the individual personal mind which apprehends them, the situation will become even more hilariously Pickwickean as now it will be the individual mind which will be populated by these 'subsistent' entities which will not be accessible to anyone else unless one accepts telepathic cognition to save the situation. One will have to accept 'unfelt' pains and pleasure, hopes and fears as they are mental entities *par excellence*.

Professor Mohanty, however, has not only talked of mental entities but also epistemic ones which, according to him, enjoy the same 'realistic' status in Nyāya as any other entities. The mental is not and cannot be regarded as epistemic if 'psychologism' is to be avoided. And if so, the 'existence' of a unique class of entities which are neither mental nor physical will have to be admitted having ontological status of their own and an epistemological status different from the ones that are usually accorded to other existent entities such as those that are physical or mental in character. *Viṣayatā* for example is one such characteristic and so also will be *viśeṣyatā*, *prakāratā*, *saṁisargatā* and *viṣayitā*. Nyāya abounds in such epistemic entities and in fact, they have proliferated as Navya Nyāya analysis developed over a period of time. These are entities created by Navya Nyāya analysis itself and their postulation was necessitated by the mode of analysis adopted by Nyāya. The history of this proliferation is interesting in itself as it shows that however innocent the first step may be in philosophical thinking it leads with logical inevitability to consequences which are difficult to accept even by those who are involved in that exercise. To give a few examples of such epistemic objects which the Nyāya analysis has brought into being we may turn to Professor Prahaladacar's article on the *Kroḍpatras* published in *JICPR*, Vol. XIV, No. 3. Here are a few samples randomly selected which, I am sure, will test the understanding of even devoted Naiyāyikas unless they happen to be specialist students of the subject: *sva-samānādhikaraṇa, sva-āśrayatva, sva-tādātmya, sva-abhinnatva, sva-nirūpitātva, sva-vṛittitva, avacchedakattva, nirūpakatā avacchedakatva, saṁbandhitva saṁbandha, avacchedakatā vṛttitva* etc.

The problem in respect of these epistemic objects which have gained 'existence' because of the Navya-Nyāya mode of analysis, has troubled the Naiyāyikas themselves. Shall they or shall they not be accorded the status of a *padārtha* in the usual sense of the term? The Nyāya 'realist' does not know how to deal with the situation. Professor V.N. Jha, for example, makes a radical distinction between the usual *padārthas* which are subsumed under the given categories of the Vaiśeṣika and others such as *pratiyogitā* etc. which according to him cannot be granted the same status of *padārtha*-hood

as is accorded to *ghaṭa* etc. He writes, 'A *Ghaṭa* after it comes into existence remains *ghaṭa* throughout its existence and continues to be designated as *ghaṭa* throughout its existence, but a *ghaṭa* does not always possess *pratiyogitā*.' (p. XXIII, *Viṣayatāvāda of Harirāma Tarkālaṁkāra* translated by V.N. Jha, University of Poona, 1987). He calls these 'acquired properties' to distinguish them from those which he designates as 'inherent properties'. The phrase recalls the term used by Locke in connection with his discussion of secondary qualities such as colour, sound etc. which according to Professor Jha, would be regarded as inherent properties in the Navya-Nyāya mode of analysis. The important point is not how the property 'red' is designated in the Lockean and the Nyāya framework but that each, in its own way, feels the necessity of positing a distinction between properties which set them radically apart from each other. And, this distinction is based on 'dependence' on something because of which they do not belong to the object in the same inherent fashion as the other ones do. In a sense many relational properties have this character, though it is not clear if Nyāya has paid attention to them.

The so-called 'acquired' properties in Nyāya go on proliferating and the Naiyāyika does not find it easy to decide what to do with them. To give but one example, one may look into the discussion on *āpādyatā* in Harirāma Tarkālaṁkāra's *Viṣayatāvāda*. *Āpādyatā* is a very strange relation and the discussion about it is so subtle and sophisticated as not to be clear even to good Naiyāyikas. It arises in the context of the postulation of the absence of a *pratibaṁdhaka* in respect of any knowledge whatsoever, and when, strangely, this is extended to the cognition of an imagined object where again one will have to posit the absence of *pratibaṁdhaka* in order that the 'imagined object' may be imagined. (For detailed discussion see page XXXIX, *ibid.*)

The problem of the *acceptance* of such entities is well-known in the Nyāya tradition and many-a-time the dispute is sought to be settled by invoking the criteria of *gaurava* and *lāghava* in the situation and arguing that only that alternative should be chosen which necessitates the postulation of the lesser number of such entities. This is *Occam's razor* without the awareness of the epistemological and ontological implications of its acceptance by the philosopher concerned. One interesting example of such a discussion in Nyāya relates to the dispute between Gadādhara and Jagdīśa regarding the construal of the meaning of an expression in terms of *prakāratā* and *saṁsargatā*. Baccā Jhā in his well-known discussion of the subject is said to have concluded that Jagdīśa's position on the issue is preferable to that of Gadādhara as it requires the postulation of only 720 pratibandhaktās against Gadhāhara's

position which requires a far greater number of *pratībaṁdhakatās* if *prakāratā** view is accepted.

This is a strange way of solving the problem in case such entities are supposed to be existent in character, for who would decide about the population of animals in the forest on such a basis. The existence of 'Existent' entities is not, and cannot, be decided in such a manner. They enjoy an independence of all such considerations and if Nyāya is deemed to be a 'realist' then it cannot be allowed to indulge in arbitrary abolition of such 'existent' realities which are independent of both the Nyāya and the Naiyāyikas.

The issue, however, is not confined to those epistemic properties only which have been termed as acquired properties by V.N. Jha. It affects one of the basic *padārthas* in the Vaiśeṣika system which, according to everybody, has an independent existent character, entailed by a realist epistemology. This is the *padārtha* called *sāmānya* and, as everybody knows, the Naiyāyikas are fond of establishing the reality of their 'realism' by pointing out to it. But, as every Naiyāyika knows, or should know, there was a problem with such an acceptance and that consisted in the question whether every *sāmānya* should be given an independent existent reality or some criterion or criteria formulated to distinguish between genuine *sāmānyas* and psedo-*sāmānyas*. As pointed out earlier, Udayana, formulated such criteria and called them *jāti-bādhaka* to focus attention upon the fact that in case any or all of these criteria did not apply to a *sāmānya,* it could not be treated as giving rise to a genuine class of existent objects. It may be said that we are ignoring the distinction between '*jāti*' and '*sāmānya*', but what could have been the necessity for making this distinction.

The *padārthas*, it may be said, have sub-classes of their own, and hence it should not cause any surprise if '*sāmānya*' also has sub-classes within it. But while this seems to be true of the first three *padārthas* which alone are granted *sattā*, that is, 'existence' within the Nyāya system, it is difficult to say whether the same is true of the other *padārthas*, particularly the next three which are given the status, not of *sattā* but of *bhāva* in the Nyāya framework. *Sāmānya*, obviously, does not have subclasses within it and it is not clear whether *viśeṣa* can be said to have any such sub-classes, even though there is the notion of *antya-viśeṣa* or the ultimate particulars which is supposed to be a property only of the atoms in the system (it will be

*See page 139 'शास्त्र मूर्ति धर्म दत्त (बच्चा) झा इमः वैदुष्य एवं व्यक्तित्व' by Kishore Nath Jha in *Unmilan*, July 1999.

interesting to find in this connection whether the individual soul that is the *ātman* also has these characteristics). As for *abhāva* whose status as a *padārtha* was accepted much later in the Vaiśeṣika system, it is divided into *prāgbhāva*, *dhvansābhāva* and *atyantābhāva*, (*anyonyābhāva* is also supposed to be accepted by some as a separate *abhāva*, distinct from the three) but it is not clear if these should be accepted as sub-classes of *abhāva* in the same sense as one accepts those that are mentioned in the case of *dravya*, *guṇa* and *karma*. In any case, the case of *sāmānya* seems to be radically different as it is based on the ground of exemplification in existents and those which not only are not exemplified but cannot ever be exemplified because they are not *sāmānyas* at all and have been regarded as such as a result of misunderstanding on the part of the thinkers concerned.

The epistemic entities, or the *jñānīyapadārthas* will, thus, have to be divided into at least two major classes; the one consisting of the three *padārthas-sāmānya*, *viśeṣa* and *samāvaya* and the other consisting of all those which have arisen because of navya-nyāya mode of analysis and whose number is, in principle, unending as their 'manufacture' depends on the ingenuity of the Nyāya theoreticians. The status of *abhāva* in this context is ambiguous as one is not sure whether it can be classed as a *jñānīya padārtha* or not. Nor is the relation of these *padārthas* to those which are supposed to arise from *apekṣā buddhi* clear, even though the latter are specifically restricted to arthmetical numbers only. Professor Dravid has suggested that ' ... numbers other than unity are the products of the *enumerative cognition*' (p. 172), forgetting that it is enumerative activity that may be said to give rise to numbers and not enumerative cognition. The distinction between number 'one' and all other numbers will cease to have any meaning if Professor Dravid's explanation of the reality of numbers is accepted. For, while the '*enumerative cognition*' of numbers 2, 3, 4, ... is there, then it will only be the '*cognition*' of those numbers that will be there and when that cognition will cease, only the '*cognition*' of the numbers will cease and not the numbers themselves as they will still be there just as is the case with other objects such as trees etc.

The issue of Nyāya realism, thus, has to address itself to all different kinds of objects that Nyāya postulates because of very different reasons. These 'objects' are not of one type and the contention that this difference between the ontological typology of the objects concerned makes no difference to the epistemological issue of 'realism' in respect of their knowledge, will be strange indeed. The very fact that there is an 'undecidable' dispute about the number and nature of these *padārthas* should be a sufficient reason

for doubting the 'objective', 'realistic' character of them. The case of Raghunātha Śiromaṇi is well-known and so also the fact that inspite of his great reputation among Naiyāyikas, hardly anyone accepted his radical suggestions in this regard. It should be remembered in this connection that he not only argued that *new padārthas* be accepted in the Naiyāyika pantheon but also demolished and rejected the old ones and threw them out with scant regard for the tradition which had 'worshipped' them for so long without feeling any guilt whatsoever.

The two most telling objections against any possible doubt regarding Nyāya being a 'realist' system *par excellence* come from the fact that Nyāya accepts a large number of 'eternal', objects in its ontology and that, in Nyāya view the Self or the *Ātman* in its pure nature is devoid of consciousness. Professor Sibajiban Bhattacharyya opens his comment on the issue by enumerating these 'eternal' objects and suggests that, 'As they are all eternal, uncreated, they are not dependent on anything, least of all on their knowledge' (p. 164). But he seems to forget that 'All reals are *objects* of God's knowledge' (p. 164) and, if it is so then to be 'real' is either to be an object of human cognition or of God's cognition, a position that is squarely that of Bishop Berkeley in the western tradition. That 'No human being is omniscient' (p. 164) is accepted by all idealists and no one, as far as I know, has maintained that to be 'real' is necessarily to be 'an object of some human cognition or other.'

As for the second objection that the *Ātman* or the self does not possess consciousness as its essential property, this does not make Nyāya any more realist than the acceptance of inumerable other such entities, if it is accepted that they are necessarily the 'objects' of some cognition, whether it be that of God or of some other consciousness different from the *Ātman* concerned.

The question whether Nyāya is realist or not can only be answered if one is first able to decide what realism as a philosophical position necessarily involves. The crucial question in this context relates to the notion of 'independence' from consciousness. Thus any discussion of the issue involves a prior acceptance of the notion of consciousness and that something can be dependent or independent of it in the context of cognition. There is the related question of what is meant by 'being an object of' or 'being an object to' consciousness.

There is also the question whether something can be regarded as 'known' if it is merely an object of awareness of some consciousness or other. The term 'known' may be used in the strict sense when to be 'known' is to be known in a judgemental form and even in a more strict form as entailing a

cognitive claim which can be 'justified' if one is challenged to do so. Beyond this, 'knowledge' may be said strictly to refer only to those complex conceptual and theoretic structures which form a systematic unity of their own and are usually designated as 'Science' or '*Śāstra*'. A cognitive assertion or denial is said to be a piece of 'knowledge' in this sense if it follows from the theories or laws or principles that form a basic part of that science or *śāstra*.

It is obvious that while in the first sense 'to be an object of awareness' involves a concrete, specific, experiential state of consciousness, in all the others the 'experiential' and the 'existential' character gets more and more diluted till, in the last stage, the idea that an 'object' of knowledge is an object of consciousness can be asserted only in the vaguest form. The related question of the independence of object of knowledge from the act of being known or as being the object of some awareness or other is, thus, bound to be different in different cases. The notion of 'independence' is itself not clear and hence any formulation of the philosophical issue concerning the 'realism' or 'idealism' of a philosophical position will have to be analyzed and answered in a differentiated manner in order that it may be meaningful and significant.

'Independence' may mean independence in origination or independence in 'existence' or independence in assertibility in respect of the nature and content of that which is asserted. Realism or Idealism thus, may also be of three types in respect of the contention that what is known is independent of the consciousness that 'knows' it. But, as consciousness itself is the vaguest of all entities and it is difficult to specify the exact sense in which it may be said to be 'known', the question of something being 'dependent' or 'independent' of it is still more difficult to answer. Most objects of awareness are independent, in the third sense as their nature and content is distinct from the consciousness of which they are object. The only exception to this occurs in the case of consciousness when it itself becomes an object of *anuvyavasāya* or self-consciousness. In this situation where consciousness itself becomes an object of cognition, the former is not just consciousness but rather consciousness as 'knowing' or as being aware of something else. The complex awareness formed by 'self-consciousness' thus presents a difficult case for the realistic contention as here what is an object of awareness does not differ radically in nature and content from that which is aware of it except in the sense that there is a content involved in the first level awareness which is not present in the same sense at the second level awareness. And, in case some new property, such as, say *viṣayatā* is produced then its 'origination' will have to be ascribed to the act of self-consciousness which has given rise to

it. It will be difficult to say that such a property will continue to obtain even when the act of self-consciousness which had given rise to it, ceases to exist. *Viṣayatā*, for example, can hardly be said to characterize the judgemental cognition which occurs at the first level of conscious cognition at the human level, just as the whole complex of the judgemental cognition that is *savikalpaka jñāna*, can hardly be said to exist at the *nirvikalpaka* level or characterize it in any meaningful way, as any such characterization will destroy its *nirvikalpaka* character. Thus, the successive levels of *nirvikalpaka*, *savikalpaka* and *anuvyavasāya* cognition are characterized by properties which arise because of acts of consciousness and which cannot be said to characterize them when that act of consciousness ceases to exist. Hence, at least in two senses of 'independence', that is in terms of 'origination' and 'existence' these properties cannot be regarded as 'independent' from the act of consciousness which has given rise to them. They may still be recognized as independent in the third sense, that is, in respect of their nature and content, though even in that case there is an element of commonality between the act of consciousness which had given rise to them and the way they themselves are constituted.

There is still a way out for the Nyāya realist to save his position in case he wants to do so at all costs in face of the above evidence to the contrary. He may maintain that what once occurred as an actuality, can always be regarded as existing as a possibility which can always be actualized whenever the appropriate conditions obtain. There is, of course, the problem whether what is possible but has not yet occurred can be regarded as 'real' or 'existent' in any relevant sense of the term. The issue has been debated in Arab philosophy but Nyāya, being an ultrarealist, may not be deterred from giving them a respectable place in its 'realist' pantheon. There will still remain the problem of what are usually regarded as beings that are impossible such as *vandhyā-putra* and Nyāya alone may, to preserve its realism, grant them some sort of independent reality as they are 'knowable' in some sense of the term. Some have argued that at least they are known as 'unknowable' and hence have to be treated as 'known' in a minimal sense, as otherwise they could not have been characterized even as unknowable or impossible.

This will, of course, introduce modal concepts into Nyāya but, as Professor Arindam Chakraborty asserts, 'Nyāya metaphysics cannot make sense of this empty "can" or "could", because nowhere in Nyāya do we find any trace of the idea of possible worlds' [*JICPR*, XII (2), p. 154]. Professor Arindam Chakraborty, however, is not deterred by this and is not shaken in his belief that Nyāya continues to be 'resolutely realist' inspite of this. There could

perhaps not be a greater example of 'faith' than this as he himself has just asserted, 'The notion of mind independence involves the notion of possibility' (p. 154, *ibid.*). For faith, there are no contradictions and all persons who have encountered men of deep religious faith know this. Philosophy, however, is not a matter of faith but of reason and it normally does not countenance contradictions unless they are shown to be 'illusory' in nature. Nyāya, we hope, believes in reason and will not like to be saved on grounds which are non-rational or irrational or supra-rational in character.

Jaipur DAYA KRISHNA

'Is Nyāya Realist or Idealist? Has the Debate Ended?' A Rejoinder

Professor Daya Krishna is back with certain insinuations and arguments against the different responses to his contention mooted in his earlier article that Nyāya could be viewed as an idealistic philosophy. A careful reading of his present article shows that he has exploited certain superficial differences appearing in the responses to reinforce his view that Nyāya cannot be treated as a realist school. In the course of his rather cavalier and rambling treatment of the issue, Daya Krishna has indulged in gross misinterpretations and even misrepresentations—perhaps unwittingly—of certain Nyāya views and doctrines. This has made it necessary to discuss passage by passage Daya Krishna's arguments in his article although they are not directly relevant to the main issue to which all the responses are addressed. I shall confine myself in this rejoinder of the second round to defending only my statements made in my previous rejoinder without making any attempt to show if they agree or do not agree with any statements of other respondents quoted by Daya Krishna. I think that despite there being certain differences in the approaches of the different respondents to the resolution of the issue, their conclusion is identical. None has advocated the view that Nyāya is idealist in any commonly-accepted or acceptable sense of the word 'Idealist' and that the appellation 'Realist' in at least one of its important philosophical senses can be strictly applied to Nyāya. I shall first restate below—even at the cost of repeating in different words what I have stated earlier—why Nyāya has been and must be regarded as a realist philosophy.

First it must be conceded that according to Nyāya there is not and cannot be anything which is absolutely unknowable by any of the four well-known means of knowledge. If there could be such a thing then Nyāya's classification of reals would not be exhaustive which it is claimed to be. This does not imply that everything is known as it is in itself. A thing may be known individually or generically as characterized by a property common to it and other things which are known individually. These two kinds of knowledge of things may be broadly described as knowledge by acquaintance and knowledge by description respectively. Thus everything may be viewed as the object of some or other kind of knowledge and as such knowability may be regarded as a universal property. Likewise nameability also may be treated as a universal property (as everything that can be known can be named). If knowability is universal, cognizability can certainly be universal. Daya Krishna's main argument both in his previous and present articles in support of his contention is that, as everything is invariably knowable in the Nyāya view Nyāya cannot but be idealist. This argument ignores the fact—which was clearly stated in my earlier response—that the relation of knowledge and its object is quite unlike the converse of the relation. No knowledge can occur without an object forming an inseparable part of its being as every knowledge is knowledge of something by its very nature. The object of knowledge helps define the nature of its knowledge and so—one might say—is part and parcel of its being. Quite the reverse is the case with the relation of a thing with its knowledge or knowledges. A thing may remain unknown throughout its existence and come to be known only after it has ceased to exist. Even when known, none of its knowledges can last for more than a couple of moments (as per the view of most Indian philosophical schools) while the thing may continue to exist longer. This fact however cannot affect its knowability as, one knowledge which has ceased to exist may be replaced by another. Even if no knowledge comes to replace the evanescent knowledge and the thing remains unknown throughout the rest of its existence, its knowability as defined above is not affected. Besides, in the absence of specific knowledge—as such and such a thing—general knowledge as a thing of a certain kind like substance or quality or ... so on, of everything can always be had. Thus the invariability of the relation of things to their knowledge or knowledges is one-sided, no particular knowledge being always related by the cognitive relation to a thing. Also a thing may remain unknown under one aspect throughout its existence while being known under many other aspects. The cognitive relation of knowledge to the thing that is its object is like that of

qualities to the substance in which they reside. The qualities cannot remain apart from the substance which is their natural substrate. But the qualities may change, one quality being replaced by another similar or dissimilar quality. This shows that the substance can exist without a particular quality whose occurrence therefore cannot be regarded as essential for the existence or being of the former. It is true that every knowledge clings to its object and as long as it exists its object cannot be dissociated from it. But it is also true (which knowledge itself testifies to the fact) that knowledge is 'of' the object which means that the object though related to the knowledge is independent of it. 'Of' signifies the independent being of the known object. It is this cognitive independence of the known object which is emphatically denied by all varieties of idealism in whatever way they interpret the relation between the object and its knowledge. God's knowledge is supposed to be cognitively related to every object throughout their existence. But despite this fact the independent existence and being of all objects is not denied by Nyāya. It is the very nature of divine knowledge to be all-knowing. Even a man endowed with yoga power may be all-knowing but these facts should not be taken to imply that things are by their nature known or knowable by means of any particular knowledge.

Having thus clearly restated the realistic standpoint of Nyāya, we may turn to Daya Krishna's counterarguments one by one. Daya Krishna quotes with approval a statement of Chakravarti to the effect that 'the thesis that objects exist mind-independently is difficult to apply to Nyāya'. What precisely Chakravarti means to say in this statement is not quite clear. But it must be emphatically asserted that taken in its literal sense the statement is totally inapplicable to Nyāya. Nyāya is perhaps the only Indian philosophical school which has maintained strict cognitive-independence-of objects. Many doctrines of Nyāya would be compromised if objects are regarded as dependent upon their cognition.

Referring to the universality of the property of nameability advocated by Nyāya, Daya Krishna next asks how perceptual cognition has been defined as unverbalizable (in Sanskrit 'Avyapadēśyam') if everything is supposed to be nameable. Since the perceptual object is unverbalizable or unnameable it must be treated as an exception to the universality of nameability. There is however no incompatibility here. Names are certainly associated with all things but they are not identical with them. So when things are perceived their names need not be perceptually cognized. Besides it is only perception which is defined as unverbalizable. Other types of cognition are not unverbalizable. So if the nonperceptual cognitions are taken into account, nameability can well be regarded as pervasive of the objects of these cognitions. In view of this fact it is rather surprising that Daya Krishna should say without any ground that 'the house of Nyāya is divided in itself and that the idea of a unique, unambiguous position of Nyāya is a myth. Nyāya is not and cannot be a monolith system as is suggested by all those who write on it ...?' Curiously enough Daya Krishna quotes here a statement of Professor Mohanty contained in his response in support of the above sweeping characterization of Nyāya. The statement is to the effect that 'there is extensionality of relation between existence and knowability?' What this statement seems to say is that all existents are knowable. This is precisely what is stated and explained above and is also the accredited view of Nyāya. The next quotation of Daya Krishna is a statement of mine stating that 'sat, prameya and abhidheya ... are supposed to have identical denotation though the connotations of these words differ from each other.' Commenting on this and Professor Mohanty's above statement Daya Krishna remarks that, 'these two positions seem at least prima facie to be radically opposed to each other.' It is simply astounding that the identity of denotation of the words coupled with the diversity of their connotations should seem to be radically opposed to the extensional relation of existence and knowability to Daya Krishna. All existents are knowable and nameable although existence, knowability and nameability are coexistent but mutually different properties. What kind of radical opposition can there be between the denotative identity and the connotative diversity of the said words?

But a more astounding remark awaits the reader just two lines further. Daya Krishna observes, 'It is not clear whether Mohanty subscribes to the generalized position that Nyāya does not and cannot in principle accept intensional relations in its system and all relations have to be necessarily extensional. There is the related problem whether a system which admits extensional relations can ever have any "intensional relation" in it.' What is this strange creature called 'intensional relation' by Daya Krishna? No school of Indian on western philosophy talks of extensional or intensional relation. Even Mohanty does not speak of any such relation in his above-quoted statement. What he seems to say is that the terms 'knowable' and 'existent' have identical extension.

From his gross misinterpretation of Mohanty's statement Daya Krishna turns to Nyāya's definitional enterprise as a whole. He says that, 'once the idea of a connotation is accepted in any system it cannot have pure extensional relations or definitions in it. And if the extensional relations and definitions

are rejected in a system it is difficult to see how it can be realist in character? What is one to make of this most enigmatic passage? How can the simple admission of connotations of words be incompatible with the formulation of extensional definitions of concepts? There are what are called in Saṇskrit, 'Svarūpalakṣaṇas' or extensional definitions and there are also what are called in Saṇskrit, 'Taṭasthalakṣaṇas' or intensional definitions and both are admitted by Nyāya and other schools. For example 'being an earthy substance' is the extensional definition of earth while the attribute of smell is its intensional definition. There is no incompatibility whatsoever between these two kinds of definition which may necessitate the rejection of either of them. Both are true to their identical definiendum.

Elaborating the above contention of his, Daya Krishna argues that if extensionality of definition implied realism then Nyāya cannot formulate the definition of any concept as 'the definition would be flawed by the fallacy of Avyāpti (too narrow definition) or Ativyāpti (too wide definition).' This is confusion worse confounded. It has been explained above how both kinds of definition devoid of any fallacy are quite possible irrespective of whether one of them entails realism or not. In this connection Daya Krishna quotes a remark of Mohanty to the effect that 'the relation of the middle and major terms in inference is not to be taken intensionally and so it cannot be a necessary relation. It can be only a relation of mere copresence.' If this is the exact reproduction of what Mohanty meant to say then we can only say that it is totally against the established view of Nyāya on the matter, Gangēsá, the great Indian logician, formulated twenty different definitions of Vyāpti or invariable concomitance mainly to cạpture the essence of invariability or necessity characteristic of the relation holding between the middle and the major terms. This relation, namely the concomitance of the middle with the major, is determined by the generic character of the middle and therein consists the necessity of the relation.

Here Daya Krishna makes several totally wrong statements. First, it is quite incorrect to say that the question of the definition of Vyāpti remained unsettled even after Gangēśa. As a matter of fact Gangēśa himself formulated what he calls the 'Siddhāntalakṣaṇa' or the final correct definition of Vyāpti after rejecting twenty different definitions. The reason for rejecting the twenty definitions was not their inapplicability to middle, major or minor term as Daya Krishna suggests. It is the inapplicability of the definition to the relation of concomitance obtaining between a major term of universal extension like nameability and any other middle term in inferences like 'This is nameable because it is knowable.' The term 'Kevalāvyatirekī' which is the well-known technical term for inferences based on negative concomitance alone, has been grossly misused here by Daya Krishna to mean a term 'which is always absent'. Can there be a term which is always absent except that which is totally nonexistent?

Proceeding further Daya Krishna asks how the Vyāpti-relation of existence and knowability can be ascertained when their negative association can nowhere be observed. He also asks how these properties can be defined. Both these questions are easily answered. Even mere positive association of universal properties observed in loci other than the minor is competent enough to yield the knowledge of the Vyāpti of the properties. As to the definition of these properties, the first, existence, is definable as temporal relationship for non-eternal entities and self-subsistence for eternal entities. The second property, knowability, can be defined as the property that determines the objecthood relating to any of the four different means of cognition. This definition takes care of the flimsy objection urged against knowability by Daya Krishna. An absurd remark made in this connection needs to be corrected. The remark is that 'Samanya gives rise to jati'; Samanya itself is Jati and it is eternal. How can it give rise to itself?

Next Daya Krishna makes a puzzling reference to 'the case of Raghunātha Siromaṇi' without even hinting what this case is. The reader is left to guess the case to be perhaps the great logician's denial of the independent reality of certain substances in his work. It may also be his disparaging reference to the view of certain logicians that Visayatā, Prakāratā, etc.—the logical entities—that they are different from the basic categories as listed by the founder of the Vaiśesika school. But even if more than seven basic entities are admitted the extensional relation between existence and knowability will not be jeopardized. Existence would cover more entities than the seven basic ones if logical entities are regarded as independently real.

After this we come to the discussion of the nature of 'possibility' supposed to be involved in the notion of 'knowability'. The discussion has absolutely no relevance to Nyāya conception of knowability according to which 'to be knowable' is to be endowed actually with the property determining the knownness of actually-known entities'. For example a certain person not knowing what an electron is intrinsically may yet be supposed to know it if he knows it as a material particle. Other material particles being actually known by the person, the property 'material particleness' could well be taken as known to him and thus the electron may well be regarded as a knowable

by him. Thus 'knowability' may be explained in terms of knownness (of a general type).

Daya Krishna's next intellectual misadventure is to suggest that Berkeley and Nyāya can be brought together on a common platform and be treated indifferently either as realist or idealist by a slight change of the Berkeleyan dictum, 'Esse est percipi'. The suggestion however is quite wrong. First, to be perceived as per Berkeley is quite different from 'to be cognized' as there are many types of nonperceptual cognition. Secondly, for Berkeley, as per the suggested interpretation, 'to be perceived' is existence itself of the object perceived whereas for Nyāya 'to be perceived or more precisely to be cognized is a property associated or copresent with the property of existence characterizing an object. Thirdly, no particular cognition is invariably associated with an object according to Nyāya while according to Berkeley each object is necessarily associated with a particular perception only (namely the perception that perceives it). When the perception is gone the perceived object is also gone. In the Nyāya view the object survives its cognition and also precedes it. Berkeley's view rides roughshod over commonsense in simply ignoring the objective causality in relation to perception of the thing being perceived. In order to be perceived a thing must pre-exist its perception at least by one moment. Otherwise, of the two simultaneous entities either may be taken to be the cause of the other.

In this connection Daya Krishna makes the suggestion that 'God's appearance on the scene would bring the Nyāya view closer to idealism'. This suggestion has been discussed and refuted above. The necessity of the relation obtaining between God's knowledge and everything in the world is, like that of all other kinds of knowledge just one-sided. God's knowledge is proved to be eternal by the cosmological argument. So simply because of its eternity and universality God's knowledge is always cognitively related with everything but this ever-present relationship does not make things dependent upon the knowledge. It is this dependence of the very being of things upon God's knowledge which Berkeley tried to justify by his view that everything is always perceived by God. If just because of their relation to God's knowledge they could be regarded as dependent upon it they could also be regarded as dependent upon God (for their existence too, not only for their origination).

There is at this point some discussion of buddhi and the nature of determinate cognition by Daya Krishna. He says that the structure of buddhi determines the structure of that which is knowable. This is precisely the opposite

of what commonsense as also Nyāya opine. The nature or form of cognition is supposed to be objectively determined by the form of its object whether it is simple or complex. Further it is simply wrong to say as Daya Krishna does that 'Jñāna at the savikalpaka level has to be linguistic in character.' Only verbal saivikalpaka or determinate cognition is linguistic in the sense that it is generated by words, not in the sense that words are involved as terms in the cognition. The relation between the Prakāra and Viśeṣya—not Pratiyogi Anuyogi of this cognition is termed as 'Saṃsarga' not 'Samsargata' as Daya Krishna says. The complex of Prakāra, Saṃsarga and Viśesya in the cognition is endowed with Viṣayatā in relation to which the cognition is endowed with Viṣayitā or subjectivity which is certainly not 'a reflexively emergent property necessitated by the occurrence of Viṣayatā which makes the knowledge complex at the first level into an object.' Viṣayitā or subjectivity is just the converse of the relation of objectivity connected with the object whether it is simple or complex. It is simply absurd to say that 'Viṣayatā makes the knowledge-complex into an object.' Equally absurd is it to say that, 'The complex formed by Viṣayitā and Viṣayatā itself becomes an object of cognition giving it new Viṣayatā necessitating the postulation of a new Viṣayatā to which it becomes the object of knowledge.' Neither does Viṣayatā become the object of knowledge (in the determinate cognition mentioned) nor does anything become the object of Viṣayatā.

A long, confusing and rather irrelevant discussion of the status of 'mental' as distinguished from physical entities is inserted at this point by Daya Krishna. In regard to this it is enough to say that in Nyāya there is no hard and fast distinction between mental and nonmental as commonly understood. Mental entities like cognition, conation etc. are as much objects of cognition as non-mental entities are. Desire, conation etc. are not themselves conscious as commonly thought. They are unconscious like common objects and like them too they become the objects of cognition. Such a view not only does not entail Cartesian dualism, it rather opposes it (as it does not admit a radical distinction between mental and nonmental entities in respect of objectivity).

In the course of the above discussion Daya Krishna refers to a statement of mine that numbers other than unity are the products of enumerative cognition of the cognizer and yet they are independent in their being of the cognition generating them. This view of Nyāya is objected to on the ground that as effects survive their causes the numbers should survive the enumerative cognition and persist even when they are not taken note of. This objection ignores the fact recognized by Nyāya that the effect can survive its efficient

cause but not its material or nonmaterial cause. The enumerative cognition is the nonmaterial cause of numbers.

After this detour through a flirtation with peripheral issues, Daya Krishna comes back to the main issue of his article, namely the cognitive independence of cognized objects. One may concede to him the point that this independence is three-fold viz., in origination, in existence and in being asserted. What prevents the object of cognition from enjoying this three-fold independence from its cognition? Even a cognition can be supposed to enjoy such an independence from the reflective cognition apprehending it. There is no reason why the apprehended and the apprehending cognitions should not be radically different from each other. If such a stipulation is not made there will be no reflective or introspective cognition at all. Further it is totally wrong to think as Daya Krishna seems to, that a cognition transforms in some manner its object (by conferring its Viṣayatā upon it) and that it is this cognition along with its Viṣayitā that is cognized by the reflective cognition. The original cognition as qualified by the Viṣayitā relating to its object is what is cognized by the reflective cognition. Thus the cognitive independence of non-cognitive objects as well as cognition itself when it is reflected upon, is defended by Nyāya.

Having thus answered all questions and objections raised by Daya Krishna we may now consider a very important question which Daya Krishna has not raised. It is the question, 'How do we know that what is not known so far by man is yet knowable?' It is not a question about possibility. It has been explained above how in Nyāya view possibility can be understood without invoking the idea of possible worlds. The question concerns the actuality of knowledge of that which is not known, that is, how the unknown can yet be treated as known? The answer to the question as explained above is that a thing which is not known individually may yet be known generically. But how do we know that an individually unknown thing is of a certain genus or type which is exemplified in certain known things? The answer to this question is this: If the unknown thing is absolutely unknown then no sensible question whatever can be asked about it. The so-far-unknown thing however must have some similarity to known things for any question about its knowledge to be possible to be raised. This knowledge of similarity is sufficient to treat the unknown as knowable. Besides, we know from the natures of the different instruments of knowledge, as to how many different types of things there could be. These types are already listed by Nyāya. So we already know that whatever is real must belong to the different types of reals known by means of the instruments of cognition. This should not be taken to mean that

the different types of reals correspond to the different instruments of cognition. All the reality-types are known by all the four instruments of cognition. The different reality-types are determined to be neither more nor less by means of perception reinforced by inference.

The sum and substance of all this discussion is that according to Nyāya, cognizability is associated with existence but it does not constitute it or is identical with it or necessarily related to it. On this account Nyāya has to be reckoned as a realist school of philosophy.

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Comments on the Article entitled '*How Anekāntika is Anekānta? Some Reflections on Jain Theory of Anekāntavāda*' by Daya Krishna published in the *JICPR*, Vol. XVI, No. 2

The canonical literature (*āgamas*) of the Jainas forms the basis of their philosophical thoughts. The word 'anekānta' does not appear in the *āgamas*. The word was first used in the beginning of the age of philosophical writings. Probably, Siddhasena Divakara was the first to use it.

The basis of anekānta is *naya*. The Bhagavatī Sūtra deals with reality from the point of view of two *nayas*—the substantial (*dravyārthika*) and the modal (*paryāyārthika*). The two points of view (*naya*) are relative, according to Acharya Siddhasena. Their relativity is known as anekānta.[1]

The philosophical thoughts in India flow between absolute permanence and absolute transitoriness. The insentient element (*prakṛti*), according to *Sāṅkhya*, is permanent-cum-transitory, but the sentient element (*purusa*) is absolutely permanent, having no modifications. According to the *Vaiśeṣika* philosophy, the earth is permanent as cause and transitory as effect, but soul, God and space are without any modification. The reality is momentary, according to the Buddhists—Whatever is real is momentary, just as the cloud. The concept of eternity is rejected outright in the Buddhist philosophy. In the *Vedānta*, Brahman is absolutely unchangeable and māyā is changeable; Brahman, being beyond reality and unreality, is unspeakable.

What has been said above proves that the concept of 'only permanence' or 'only impermanence' is not of universal application, whereas anekānta covers the total reality and is, therefore, of universal application. Acharya Hemchandra puts this universality in a poetic fashion—

Ādīpamāvyomasamasvabhāvaṃ
syādvādmudrānatibhedi vastu/
tannityamevaikamanityamanya-
diti tvadājñādviṣatāṃ pralāpāḥ//
(-Anyayogavyavacchedikā, 5)

'The reality, not going outside the realm of *syādavāda* is of same nature, be it a lamp or the space. Some of those (philosophers) who do not obey your dictum O Lord! indiscretely declare reality to be absolutely permanent, whereas others declare it to be absolutely temporary.'

From the point of view of substance, reality neither originates nor perishes. From the point of view of mode, the mode originates and perishes. The Bhagavatī Sūtra speaks of two aspects of reality—the permanent and the temporary. The permanent part does not change, the temporary part undergoes change[2]—*athire paloṭṭai, thire no paloṭṭai.*

Umasvati defined reality as consisting of permanence, origination and destruction on the basis of the two viewpoints of substance and mode—*utpādavyayadhrauvyayuktaṃ sat*| (*Tattvārtha Sūtra*, 5/29).

Reality has three characteristics. Therefore, it is *anekāntika*. One cannot comprehend its nature without anekānta. When it is said—'Reality is permanent', it is one view; when it is said Reality is 'temporary,' it is another view. Both of these views are *ekāntika* (one-sided). When it is said—'Reality is permanent-cum-temporary,' it is the anekanta viewpoint. What is peculiar or new about it is that it simultaneously accepts reality as possessed of both permanence as well as transitoriness.

THE MEANING OF THE TERM ANEKĀNTA

Anekānta is lexically a negative term, but substantially it is not negative. Anekānta conveys the relativity of substance and mode. It is not possible to have existence of only substance or only mode,[3] that is to say, substance and mode cannot exist without each other. The very nature of reality being *anekāntika*, the term *ekānta* cannot be used to comprehend it. *Aneka* does not mean 'indefinite' or 'infinite', but it means 'more than one'. Reality having three characteristics, '*aneka*' does not mean indefinite. Also as '*aneka*' does not designate the absolute infinity of modes, it does not mean 'infinite'. Modes are successive attributes. Infinite modes are not possible in a single substance simultaneously. For they do not originate simultaneously.[4]

The statement that an object has infinite attributes is available. This means that an object is capable of undergoing infinite modifications. It is only on account of this capability that without giving up its own nature, it goes on transforming in various forms.

WHY THERE WAS THE RISING OF ANEKĀNTA?

The reality (*sat*) or the substance (*dravya*) is object of knowledge. *Naya, anekānta* and *syādvāda* are essentially the forms of knowledge, which are the means to know it. Sometimes we have a propensity to know it wholely, sometimes part by part. The attempt to know the same reality through various propensities forms the basis of *nayavāda*, *anekāntavāda* and *syādvāda*.

The doctrine of *naya** is the process of knowing the reality part by part. From substantial *naya*, the substance is a real object; the mode is an unreal object. From modal *naya,* it is the vice-versa.[5]

The substantial *naya* is the standpoint to comprehend the substance; the mode does not fall in its domain, but it does not mean that it denies the mode. Therefore, though *ekāntika*, such a standpoint is a valid point of view (*naya*). If the substantial standpoint denies the mode, it would become invalid (*durnaya*). Similarly the modal point of view comprehends the mode, but it does not deny the substance. Therefore, though partial, it is a valid viewpoint (*naya*). If it denies the substance, it, being absolutely *ekāntika*, would become invalid. The non-relative one-sided view has created many problems in the field of philosophical thought. Anekānta provides a solution to those problems. If substantial or modal *nayas* were to be non-relative, anekānta would not have arisen. The reality has an innate capacity of changing and change is thus a part and parcel of reality. Permanence and change cannot be separated totally; they cannot exist independently. It is to deny their independence that non-absolutism arose.

WHAT IS SYĀDVĀDA?

Anekānta took birth on the basis of interdependence of substantial and modal viewpoints. *Syādvāda* expresses that very interdependence. Anekānta has two aspects: permanent and temporary, existence and non-existence, general and particular, one and many, expressible and inexpressible. What unites these

**Naya* is a partial viewpoint without contradicting the remaining viewpoints.

aspects is proved through *syādvāda*. Gautama is reported to ask: Is the *ratnaprabhā* earth permanent or temporary? Mahāvīra answered: It is partly permanent and partly temporary. *Syādvāda* accepts both the thesis and the antithesis. How could the contradictory attributes of permanence and transitoriness co-exist together? The question is answered by Mahāvīra: Ratnaprabhā earth is permanent from substantial point of view, temporary from modal point of view. *Naya, anekānta* and *syādvāda*—all these three are useful in the field of metaphysics.

SAPTABHAṄGĪ

Existence has many modes. Three dimensions have been identified for determining the nature of each of these modes: existence, non-existence and inexpressibility. These three dimensions can express the nature of existence. For example, a duet of two atoms has two aspects: It exists in its own nature, but it does not exist from the point of view of the nature of another entity. An example of atom in modern science may be given: the hydrogen atom consists of two particles—one electron and one proton. The electron has a negative charge and the proton has a positive charge. The electron rotates in the circumference, while the proton is stationary in the nucleus. Thus both are opposite to each other. It can be said that the electron is real from the point of view of its own nature, but non-real from the point of view of the nature of proton.

Here a doubt may be raised—when it is commonplace knowledge that anything is not real from the point of view of opposite nature, why should it be propounded as a theory? For example, Professor Daya Krishna has raised the question—'The negative characterization, however, is both too wide and too vacuous to be regarded as significant in terms of actual predication, for if, say, there is such a thing as a red rose and we are saying that "this rose is red" we are not only denying that it has other colours, but also the fact that it is an elephant or any of the other myriad things which are not meant by the term "rose" in the English language. But what could possibly be meant by saying that the object designated by the term "rose" is not any of these things? It is, of course, being assumed that the other terms are not synonymous of the term "rose", just as it is being assumed that the term "rose", itself a homonym designating other things, is used in different contexts.'

The question raised here can be summarily answered thus: The atoms constituting the rose flower have assumed the form of rose at present; they

were not so in the past nor will they be so in the future. Therefore, the atoms constituting the rose are rose from the point of view of present times, but they are not rose from the point of view of past or future. Svami Visuddhanandaji, the Guru of Dr Gopinath Kaviraj, is said to have the capacity to change the rose into stone and vice-versa, through the solar science. Another example is that of water. 'This is water'—this statement pertains to the present mode. It would change into oxygen and hydrogen as the process of electrolysis takes place through electricity. (If water is required, a proper process will transform the gases into water.)

In these cases the rose (or water) is real from the point of view of the present mode, but it is not real from the point of view of past or future. Therefore, positive and negative statements are made for showing the relativity of the modes of past, present and future.

A substance has two-fold powers: one is the power to hold its own self. This is the quality of *agurulaghu*, which is propounded through a positive statement. The other power is that of keeping one's existence independent of others so that an entity can exist separately, and does not lose its identity. This power is stated through a negative statement. The positive and negative statements are thus not imaginative; their usages are not redundant. A single positive statement cannot describe what it is and what it is not. The rose flower is different from that of *dhatura** is a case of empirical knowledge, needing no positive-cum-negative statement. But a positive-cum-negative statement is required to show why they are different. Both of them are essentially nothing but matter (or *pudgalāstikāya*). The molecules forming the rose are different from those of the *dhatura* flower. Therefore, the rose flower is keeping its entity separate from that of the *dhatura*. If the molecules of both the flowers had identical mode, rose would have been *dhatura* and *dhatura* would have been rose. Only the positive statement could not have propounded the identity-cum-difference or unity-cum-diversity.

The rose flower is a mode of *pudgalāstikāya* (which is one of the ultimate substances) and so is the flower of *dhatura*. At present, modes of both are different. In future, it is possible that the molecules which have taken the form of *dhatura* flower may take the form of rose flower, and vice-versa. But, without showing the separation of molecules which have assumed the form of rose from those which have assumed the form of *dhatura,* it would not be possible for us to identify objects—that is to say, the system of objects would become impossible. For a layman, rose and *dhatura* are evi-

*The *Dathura alba,* the thorn apple which is a powerful narcotic.

dently different, but for a person who knows the law of transformation, they are not absolutely different, both of them being the modifications of the molecules of matter (*pudgala*). But this modification may change also in future. From the point of view of eternity, we would like to say that as both the flowers are modifications of molecules, they are identical. But from the point of view of present, we cannot accept them as identical. Therefore, we should have the knowledge of both, the positive and the negative (i.e., what it is, and what it is not).

The third alternative of 'unspeakable' in *syādvāda* is not the same as the inexpressibility of Brahman in the Vedanta philosophy. When we have the existence of the present mode, we have the non-existence of the future mode at the same time. Both cannot be simultaneously expressed; we have, therefore, to take resort to the third alternative of unspeakability. This is the limitation of the language that though both can be known simultaneously, yet they cannot be expressed simultaneously.

OMNISCIENT

Anekānta is a form of knowledge and *anekāntika* substance is the object of knowledge. The basis of *anekānta* is the nature of reality (*sat*) or substance. The nature of the substance in itself is permanent-cum-temporary. It does not make any difference if it is known by an ordinary man or an omniscient. The only difference is that a common man knows it through the sensuous knowledge whereas the omniscient knows it through the direct knowledge. The law of *anekānta* is of universal application. Substance cannot exist without mode; therefore, it applies on substance; mode cannot exist without substance; therefore, it applies on mode. The transcendental existence and empirical existence are not absolutely separate in the Jain philosophy. The mode is empirical existence and the substance is transcendental existence; but they are inseparably joined together—both of them are two aspects of the same existence; and therefore, they cannot be conceived of as absolutely independent.

If existence is to be propounded even by an omniscient, he will have to use *syādvāda* and *saptabhaṅgī* and similar is the case with an ordinary man. When substance in itself is permanent-cum-temporary, how can the omniscient express it in absolute terms? He will have to use the language of *syādvāda*, e.g. substance is relatively (i.e. with respect to a particular point of view) permanent and relatively temporary. A part of a molecule of three atoms is expressed from one viewpoint, while another part of the same

molecule is not expressed from that point of view. There would be no difference, whether this molecule of three atoms is expressed by an omniscient or by an ordinary man.

The methodology of *anekānta* does not admit of any difference between an omniscient and an ordinary *śrutajñānī*. The theory of *Syādvāda* is not connected with perfection or imperfection of knowledge. There is no reason to accept that the knowledge of imperfect being is *ekāntika*. *Anekānta* does not imply that the knowledge of one who knows partial truth is *ekāntika* and the knowledge of one who knows the whole truth is *anekāntika*. The basis of *anekānta* is the triplicate nature (i.e. origination, cessation and permanence) of substance and not limitation or unlimitation of knowledge (i.e. *śrutajñāna* and *kevaljñāna*). The object of knowledge of an omniscient in its entirety can be the object of the partial knowledge of *śrutajñāni* also. As already stated, omniscient knows directly the whole truth, whereas a man of partial knowledge, can know it through the statements of the omniscient, i.e. through the scriptures; therefore one cannot say that the knowledge of the man of partial knowledge is necessarily *ekāntika*.

The nature of permanence and temporary are not imposed on substance by knowledge, perfect or imperfect. Permanence and transitoriness are the objective attributes of the substance, and not of knowledge. Because the substance is intrinsically permanent-cum-temporary, it does not depend on the knowledge of the knower. As the nature of the substance is permanent-cum-temporary for the omniscient, so it is for the ordinary knower (who is endowed with only partial knowledge).

TRANSCENDENTAL AND EMPIRICAL TRUTHS

The theory of permanence and transitoriness being of universal application, no distinction between transcendental and empirical existence can be admitted. If this distinction is to be made at all, we may put it according to the Jain view as—substance is transcendental, whereas mode is empirical. These two are not absolutely different; therefore, existence of substance can be accepted as permanent as well as transitory without any difficulty.

NOTION OF POSSIBILITY

That the substance is *anekāntika* has two meanings: The first meaning is—it is of triplicate nature of origination, cessation and permanence. Therefore, it can be said to be *anekāntika*. The second meaning is that the substance

has many—innumerable or infinite—modifications: therefore it has infinite attributes.

Modifications have two varieties: the intrinsic modifications (*arthaparyāya*) and the visible modifications (*vyañjana paryāya*). The intrinsi modifications are subtle; they change with the minutest unit of time (*samaya,* the smallest unit of time, which is further indivisible). This change has twelve stages.[7]

The subtle modifications cannot be known through the senses. They are the object of super-sensuous consciousness. The visible modifications are gross. They are manifest and, therefore, can be known through the senses also. It is in the case of these gross modifications that we can think of both, the possible and the probable. Every modification has the possibility of changing into any other mode. A colour can change into another colour, a smell into another smell, a taste into another taste, and a touch into another touch. *Yati Bhoja* has described two types of potentialities—the potentiality which can be actualized at a distant time (*ogha śakti*) and potentiality which can be immediately actualized (*samucitā śakti*); the former is the mediate cause, while the latter is the immediate cause of change. Grass has the potentiality of becoming ghee at a distant future. Curd can change into ghee immediately. The potentialities are too many to be enumerated. Theoretically, it could be said that potentialities of an object are innumerable as far as the mediate form of potentiality is concerned. A scientist through his research can know a few of these. A person with the power of super-sensuous knowledge can know them through super-sensuous knowledge. An ordinary man can, however, know only the immediate cause or the visible modifications. We, therefore, cannot put any limitation on the possibilities or probabilities.[8]

The reality has five varieties, viz. *dharmāstikāya* (medium of motion), *adharmāstikāya* (medium of rest), *ākāśāstikāya* (space), *pudgalāstikāya* (matter) and *jīvāstikāya* (soul).

They never change into one another. The soul does not change into matter and vice-versa. The reality or the ultimate substances are absolute truth. Non-absolute truths are only the modifications. Man is not an ultimate substance; he is only a modification. All visible objects are modifications of the ultimate substances, they are not the ultimate substances. Things emanating from modifications can change into each other; they are, therefore, not absolutely different. The doctrine of identity-cum-difference propounded by Anekānt is useful for understanding the identity as well as difference of the object. These visible objects are possessed of their own shape, qualities and characteristics and, therefore, they are different. Thus, gold is not mercury, mercury is not

gold. But at the same time both of them are modifications of the same ultimate substance, viz. *pudgala* (i.e. matter). Therefore, gold can be transformed into mercury and vice versa. They are non-different or identical from this point of view. Thus, they are neither absolutely different nor absolutely identical, but they are identical-cum-different.

The phenomenon of radioactivity accepted by modern science is a good illustration to make this point clear. The element Uranium which has the atomic number 92 gets transformed into the element Lead which has the atomic number 82, in a specific time, on account of its radioactive nature. The atomic numbers of gold and mercury are 79 and 80 respectively. When, through proper external means, the atom of mercury is made to lose one electron and one proton and two neutrons, it will change into the atom of gold.

Anekānta has its limitations; it is applicable only in the field of ontology—only to comprehend the relativity of substance and modification. The science of existence or reality is absolute; non-absolutism is not applicable to the ultimate existence of the reality. Therefore, it is not desirable to apply non-absolutism everywhere. For example, in the field of mathematics, anekānta could be applied once in a while, but it is not possible to apply it everywhere.

Eminent statistician, Professor P.C. Mahalnobis has observed that '*Syādvāda*' has the genesis of the basic foundation of the modern science of statistics.[9]

'I should now like to make some brief observations of my own on the connection between Indian–Jains' views and the foundations of statistical theory. I have already pointed out that the fourth category of *syādvāda*, namely, *avaktavya* or the "indeterminate" is a synthesis of three earlier categories of (1) assertion ("it is"), (2). negation ("it is not"), and (3) assertion and negation in succession. The fourth category of *syādvāda*, therefore, seems to me to be in essence the qualitative but not quantitative aspect of the modern concept of probability ... .

'At the same time it is of interest to note that 1500 or 2500 years ago, *syādvāda* seems to have given the logical background of statistical theory in a qualitative form.

'Secondly, I should like to draw attention to the Jain view that "a real is a particular which possesses a generic attribute." This is very close to the concept of an individual in relation to the population to which it belongs. The Jain view in fact denies the possibility of making any predication about a

single and unique individual, which would be also true in modern statistical theory.

'The third point to be mooted is the emphasis given in Jain philosophy on the relatedness of things and on the multiform aspects of reals which appear to be similar (again in a purely qualitative sense) to the basic ideas underlying the concepts of association, correlation and concomitant variation in modern statistics.

'The Jain view of "existence, persistence and cessation" as the fundamental characteristics of all that is real necessarily leads to a view of reality as something relatively permanent and relatively changing which has a fervor of statistical reasoning. "A real changes every moment and at the same time continues" is a view which is somewhat sympathetic to the underlying idea of stochastic processes ... .

'Finally, I should draw attention to the realist and pluralist views of Jain philosophy and the continuing emphasis on the multiform and intently diversified aspects of reality which amounts to the acceptance of an "open" view of the universe with scope for unending change and discovery. For reasons explained above, it seems to me that the ancient Indian Jain philosophy has certain interesting resemblances to the probabilistic and statistical view of reality in modern times.'

SIMULTANEITY

Anekānta does not reject the concepts like impossibility or improbability. For example, it is accepted by Anekānta that it is neither possible nor probable that the *Jīva* (soul) may possess the particular modes of atom (which is not *jīva*). Similarly, it is neither possible nor probable that the non-sentient substances (*ajīva*) may possess the modes of *jīva* (the sentient substance). It is not expected of the doctrine of Anekānta to turn impossible into possible or improbable into probable. Anekānta's job is to get rid of the internal contradictions apparent between the eternal and the non-eternal, that is, substance and mode. Seen from the point of view of fluxism, change is real and true, while the eternal is unreal; whereas according to the eternalism (the doctrine of absolute permanence), permanence is real and true, while change (or impermanence) is unreal. This illusion of contrast and conflict between eternal and non-eternal is creating problems in understanding the reality (*sat*) or substance (*dravya*). Anekānta has tried to resolve this problem by asserting

that both—the eternal as well as non-eternal—can co-exist in the same substratum. (In other words they do not need separate substratum to exist in.) The substratum of both is the *sat* (reality). Therefore, we cannot comprehend *sat* by separating the permanence and creation-cessation (or impermanence). Can we separate a pot from the clay? Can we imagine a cloth different from the fibres? In the same way, can we find out a substratum of mode other than the substance itself? This is not possible at all. It is only by accepting this impossibility that Anekānta has put forth a solution to the problem.

There is a continuous flow of modes in every real (ultimate) substance. As permanence is the characteristic (nature) of ultimate substance or reality, so is the creation and cessation.

The simultaneous occurrence of substance and mode is not at all a philosophical problem. The reality has permanence at the same moment when it is possessed of creation and cessation. Therefore, the state of their simultaneity is bound by the law of concomitance (*sāhacarya*). We misunderstand all laws to be universally applicable—this idea, in fact, creates problems. It is true that two artificial (or undertaken) activities cannot be simultaneous (in the strict sense). This is the law of 'undertaken actions'. Nevertheless, natural activities can take place in any number, simultaneously, for the law of 'undertaken action' does not apply on them. For example, the destruction and creation take place in the cells of the body, continuously. There is simultaneous creation and destruction. Another example is that of a duet or a diatomic molecule. It can be a vibrating molecule and non-vibrating molecule at the same time. One of its atoms may be vibrating, while the other one may be non-vibrating. Both these properties (that of vibrating and non-vibrating) exist simultaneously in it. Thus simultaneity means the tritemporality of change.

In Jain philosophy, both the types of modes, viz. actual and potential, are accepted. Thus, in clay, the mode of pot is potential while that of clay is actual.

Let us take another example: A person is trying to recite ten verses. After having recited a verse, we can say that he has actually recited one verse, there is the probability that he would recite the remaining nine verses. As soon as he starts reciting the second verse, the words of the first verse have gone into the space-record, he is actually reciting the second verse and there is the probability that the would recite the next verse, and so on ... . Now, generally we consider only the present mode as the real one; but it is not an all-

pervading rule. The universal law is that the recitation of the first verse which has passed away in the space-record is now not real in the form (or mode) of recitation, but the sound waves (or particles) in which the verse was recited are still actually existing in space, and therefore the verse is still real in the form of sound-particles (or waves). Thus we cannot imagine absolute difference between the actual and the potential mode. Thus only the conception of different-cum-identical can take us towards the reality. The Jain philosophy has explained the doctrine of simultaneity on the basis of the tri-temporal nature of substance and its transformable modes or states. Therefore, the explanation of presence and absence cannot be made merely on the basis of the sole rule of present tense.

SPEECH

The Jain philosophy has explained the phenomenon of speech or speaking very deeply. According to it, during speaking, first of all the speaker appropriates the clusters of speech-particles and transforms them into speech and then releases them. In this process, in the first instant of time (t_1), the speech-particles are appropriated and in the second instant of time (t_2), they are released after conversion into speech. But at the same time-instant (i.e. t_2), new clusters of speech-particles are also appropriated, which are then released in the third time-instant (t_3), and so on. In this way, there is continuous and simultaneous release of the formerly appropriated speech-particles and appropriation of the new speech-particles, every moment. This shows that during the same (single) instant of time there are two actions—release as well as appropriation. It is to be noted that here the release is that of the particles appropriated in the preceding instant and the appropriation is that of new particles. It means that when set 'a' is released, set 'b' is appropriated; but one does not release and appropriate set 'a' at the same instant of time.[10]

CONCLUSION

The doctrine of anekānta is not meant for contradicting other absolutist views. It is enunciated for finding out the nature of truth. The nature of reality (*sat*) is explained through two viewpoints (*naya*)—substantial and modal. The *naya* is essentially an absolutist view. The purpose of anekānta is not to contradict absolutist view. Relative absolutist view is in conformity with the doctrine of anekānta. It is only the non-relative absolutist view that has been reviewed by the doctrine of anekānta. This sort of review took place in the middle age—the philosophical era. In the *āgama*-era, it was propounded only to describe the nature of *sat*.

NOTES AND REFERENCES

1. jeṇa duve egantā vibhajjamāṇā aṇeganto—Sanmati Tarka, 1/14.
2. Bhagavatī Sūtra, 1/440.
3. davvaṃ pajjavaviuyaṃ davvaviuttā ya pajjavā ṇatthi.
   uppāya-ṭṭhii—bhaṃgā haṃdi daviyalakhaṇaṃ eyaṃ.
   —Sanmati Tarka, 1/12.
4. 'ayugapadavasthāyinaḥ paryāyaḥ'—Tattvārtha Sūtra Bhāṣyānusariṇī Tīkā, 5/38.
5. davvaṭṭhiyavattavvaṃ avatthu ṇiyameṇa pajjavaṇayassa.
   taha pajjavavatthu avatthumeva davvaṭṭhiyaṇayassa.
   —Sanmati Tarka, 1/10.
6. Bhagavatī Sūtra, 12/2/8: 'āyā bhaṃte! dupaesie khaṃdhe? aṇṇe dupaesie khaṃdhe? goyamā! dupaesie khaṃdhe 1. siya āyā 2. siya noāyā 3. siya avattavvaṃ—āyāti ya noāyāti ya 4. siya āyā ya noāyā ya 5. siya āyā ya avattavvaṃ—āyāti ya no āyātiya 6. siya no āyā ya avattavvaṃ—āyāti ya noāyāti ya.
7. 'agarulaghuvikāra sva-bhāvaparyāyāste dvādaśadhā ṣaḍvṛddhihānirupāḥ. anantabhāgavṛddhiḥ, asaṃkhyātabhāgavṛddhiḥ, saṃkhyātabhāgavṛddhiḥ, saṃkhyātaguṇavṛddhiḥ, asaṃkhyātaguṇavṛddhiḥ, anantaguṇavṛddhiḥ, itiṣaḍvṛddhiḥ. tathā anantabhāgahāniḥ, asaṃkhyātabhāgahāniḥ, samkhyātabhāgahāniḥ, ṣaṃkhyātaguṇahāniḥ, asaṃkhyātaguṇahāniḥ, anantaguṇahāniḥ, iti ṣaḍhāniḥ. evaṃ ṣaḍvṛddhihānirupāḥ, dvādaśa jñeyāḥ.' Ālāpapaddhatiḥ, Paryāyādhikāraḥ, Appendix I in the Nayacakra by Mailladhavala, p. 211, Bhāratīya Jñanapīṭh Prakāśan, 1971.
8. Dravyānuyogatakarṇā, śloka 6, 7:
   'guṇaparyāyayoḥ śaktimātramodhodbhavādimā.
   āsannakāryayogyatvācchaktiḥ samucitā parā.
   jñāyamānā tṛṇatvenājyaśaktiranumānatah.
   kiṃca dugdhādibhāvena proktā lokasukhapradā.'
9. The complete article of P.C. Mahalnobis is published in 'The Foundations of Statistics', *Dilectica* Vol. VIII, No. 2, 15 June, 1954, Zurich, Switzerland.
10. Prajñapana Vṛtti, patra 264: kaścidekasmin samaye bhāṣāpudgalān gṛhītvā tadanantaraṃ mokṣasamaye anupādānaṃ kṛtvā punastṛtīye samaye gṛhṇātyeva na muñcati, dvitīye samaye prathamasamayagṛhītān pudgalān muñcati anyānnādatte, athānyena prayatnaviśeṣeṇa grahaṇamanyena ca prayatnaviśeṣeṇa (ca) nisargaḥ tau ca parasparaṃ virudhau parasparaviruddhakāryakaraṇāt tataḥ kathamekasmin samaye tau syātāṃ? tadayuktaṃ, jīvasya hi tathāsvābhāvyāt dvāvupayogāvekasmin samaye na syātāṃ, ye tu kriyāviśeṣāste bahavo'pyekasmin samaye ghaṭanta eva, tathādarśanāt, tathāhi—ekāpi nartakī bhramaṇādinṛttaṃ vidadhānā ekasminnapi samaye hastapādādigatā vicitrāḥ kriyāh kurvatī dṛśyate,

sarvasyāpi vastutaḥ pratyekamekasmin samaye utpādavayāvupajāyete, ekasminneva ca samaye saṅghātapariśāṭāvapi, tato na kaściddoṣaḥ, āha ca bhāṣyakṛt—gahaṇanisaggapayattā paropparavirohiṇo kahaṃ samaye? samae do uvaogā na hojja kiriyāṇa ko doso? ||1|| iti, tṛtīye punaḥ samaye tāneṣa dvitīyasamayopātān pudgalān muṇcati na punaranyānādatte, utkarṣeṇa tvasaṅkhyeyaiḥ samayairekaṃ grahaṇaṃ manyeta tata āha—'anusamayaṃ' pratisamayaṃ gṛhṇātī, tadāpi kadācidvirahitamapi vyavahārato'nusamayamityucyeta tatastadāśaṅkya vyavacchedārthamāha—avirahitaṃ, evaṃ nirantaraṃ gṛhṇāti, tatrādye samaye grahaṇameva na nisargaḥ, agṛhītasya nisargābhāvāt, paryantasamaye ca mokṣa eva, bhāṣābhiprāyoparamato grahaṇāsambhavāt, śeṣeṣu dvitīyādiṣu samayeṣu grahaṇanisargau yugapatkaroti. sthāpanā ceyam—

A_p = Appropriation
R = Release
X = Nil

t_1	t_2	t_3	t_4	t_5	t_n
A_p	A_p	A_p	A_p	A_p	X
X	R	R	R	R	R

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ĀCĀRYA MAHĀPRAJÑA

Reaction to the Article of Professor R.C. Pradhan entitled 'Persons as Minded Beings: Towards a Metaphysics of Persons' published in the *JICPR*, Vol. XV, No. 3

Professor R.C. Pradhan in his article 'Persons as Minded Beings: Towards a Metaphysics of Persons' (*JICPR*, Vol. XV, No. 3) attempts to build up, as professed in the title of the article, a metaphysics of persons. But despite his conscious effort to carefully distinguish his position from that of Descartes, the article fails to rise above a restatement of Cartesianism. It seems that he fails to realize the unique and unitary character of the person. This failure manifests in his emphasis on the mental aspect, as distinct from the bodily one, of a person. He even goes to the extent of identifying the person with the self, thereby implicitly denying the role of the body in forming the personhood of a person.

The following points may be raised against Pradhan's thesis from a Strawsonian point of view [Pradhan claims to accept the Strawsonian account (pp. 18–19)]:

1. Pradhan writes: 'Persons are persons and that is the basic ontological reality.' Yes. But quite inconsistently he writes immediately thereafter: 'The body and the soul or mind are the ways the persons are described ...' (p. 19). Describing the person in this way is the result of the failure to see him as a total and complete being. It is the result of the discontent to stop with the unitary being called person. The person is not to be described in terms of a body and a mind, for these concepts are secondary and derivative in relation to the concept of a person which in Strawsonian terminology is the 'primitive concept'. It is the primitive concept both ontologically and empirically. If we try to make an ontological analysis of it, as we may feel a sort of intellectual discomfort to rest contented with the unique kind of being, what we find, if we find anything, is not something with which we can identify the person. For persons, in Pradhan's own words, are ontologically a natural kind of being (p. 18). To speak of them as self-conscious and minded beings and to refer to a separate level is to recall the problem which the person concept professes to solve.

Empirically, a person is born as a person, he dies as a person. During his span of life he comes into contact with and enters into personal relations with others in his capacity as a person. The person is not treated as either a body or as a mind, or as a combination of the two. We interact with persons, not with their minds; so we embrace a friend, not his body. We say 'X is five feet tall' and not 'X's body is five feet tall', 'X is intelligent' and not 'X's mind is intelligent'. X is a person so long as X is alive. X ceases to be so at death. Then we talk of X's body so as to distinguish it from X. X's body is only a former person. So the concept of body comes next to that of a person. A mind, in the same way, is also a secondary construct—the supposed substratum of all the so-called internal capacities of the person. The person who was rashly active till the other moment comes to a standstill at death (e.g. in a motor accident). Where did all his capacities go? Let us say, imagine, pretend and claim to know that all these go with the mind, soul or ego that supposedly leaves the body at death. This phenomenon of personal death by reducing the onetime person to a perishable corpse gives rise to the concepts of mind and body that have been troubling the philosopher's head since time immemorial. Hence Pradhan by taking resort to body and mind in

describing a person has done nothing less than 'opening up the possibility of the Cartesian dualism'.

All our talk about body in contradistinction to mind seems to treat the former on a par with a material body. But the personal body, apart from its admissibility of the Strawsonian M-predicates, has nothing in common with a material and inanimate body. A personal body is a live organism right to its minutest part.

Pradhan's attempt to define a person as a 'minded being' is a direct echo of Descartes' identification of I with the thinking mind. One can observe almost the same Cartesian sort of contradiction involved in Pradhan's article. First he says that the mind is *partially autonomous* (p. 20). He recognizes the causal dependence of mind upon body, yet he prefers to describe a person as a 'minded being' and claims it to be a 'self-complete description of the persons'. But there cannot be a logical reconciliation between 'persons as the basic ontological reality', *partial autonomy of mind* and 'persons as minded beings'. It appears that Pradhan is in the same labyrinth as Descartes, as both want to grant autonomy to both mind and the person at the same breath. But to speak of the mind is to break up the person, and any description of the person in terms of mind has an implicit meaning in which the person is projected as a trans-bodied entity. Hence, to retain the unique and unitary character of the person, all references to body and mind should be carefully avoided in describing him. Their relation to the person is not like that of the parts to the whole either, for the person is not given birth to by assembling these two [or, plus any other feature(s)].

2. It is the same Cartesian logic behind Pradhan's claim that 'the person is primarily a first person' (p. 21). Philosophers arguing in this line seem to forget the very fact of experience that the I-sense is not an inborn awareness. The child learns to speak 'I' correctly only at a later stage. It requires him first to identify himself as a member of the family and the community. 'I' is spoken not only to distinguish oneself from others but also, and primarily, to include oneself among others. The concept of 'I' is dependent upon and derivative from that of 'We'. For there is an inbuilt necessity of withdrawal of some kind and a philosophizing of the Cartesian height to have an I-sense, none of which the child is presumably capable of. Pradhan's logic makes us deprive the non-I-speakers (infants, e.g.) of personhood. But is it justified?

3. Lastly, Pradhan makes 'being conscious' the metaphysical essence of persons. But being conscious is not as simple a criterion as it appears to be. Would he regard an infant or an insane human being to be conscious or not? Again is it a necessary or a sufficient condition for the being of a person? Would he regard, like Locke, the amputated conscious little finger to be the person?

A person is an empirical being. By a person we do not understand anything above and beyond one's organic empirical existence. (The concept of social immortality of a person he speaks of is a different thing and is quite intelligible). A person is given birth to at a particular point of time, he likewise dies at a particular point of time. The person lives between these two ends.

A person is not a material body, but this does not necessitate us to accept Pradhan's claim that 'persons outlive their bodies' (p. 24). The person dies with the death of the person.

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Response to Dr Sauravpran Goswami's reaction to the article of Professor R.C. Pradhan entitled 'Persons as Minded Beings: Towards a Metaphysics of Persons' published in the *JICPR*, Vol. XV, No. 3

Dr Sauravpran Goswami in his comments on my paper, 'Persons as Minded Beings' (*JICPR,* Vol. XV, No. 3) has raised certain issues which need serious consideration. His main objection is that my understanding of the concept of person is basically Cartesian and therefore it misses the idea that person is a 'total and complete being' (p. 218). He has brought forward the Strawsonian argument that the concept of person is primitive to counter my so-called Cartesian argument that persons are describable as having body and mind. In this response I want to emphasize that there is no basic contradiction between the idea that persons are total and complete beings with the idea that they can be described as having mind and body and that they are minded beings.

WHY CARTESIANISM?

It is difficult not to be Cartesian, at least in a minimalist sense, while dealing with the concept of person. The essence of Cartesianism, as Goswami rightly

understands, is to view persons as minded beings (in Descartes' terminology 'thinking things'). But there is a difference between my position and what is known as the official doctrine of the Cartesian dualism. I do not divide the person into two beings, one the mental being and the other the physical being. The two-being theory is long discarded even by a strong Cartesian like Strawson. I subscribe to the view that persons are complete, autonomous and concrete individuals who continue to exist over a period of time. But at the same time I believe that persons are describable as having both body and mind. For emphasis, I add that they are minded beings without meaning that they do not have a body at all. For I believe that personhood is not dependent on having a body and that it metaphysically depends on the person's being a 'minded being'.

So far as the description of persons is concerned we cannot deny that they are such beings who are capable of thinking, feeling, remembering, etc. They are known as having the personal predicates or the P-predicates as distinguished from the material predicates pertaining to the body called the M-predicates. I agree with Strawson that these two modes of description taken together are both necessary and sufficient to have a complete understanding of the person. It is not that we can manage to describe the persons only as mental beings or only as physical beings. I have not suggested in the paper referred to that being minded means to be only minded. Being minded implies that there is something else which could be ascribed to the persons.

I agree with Goswami that a person cannot be described 'as either a body or as mind, or as a combination of the two" (p. 29). The idea of a combination of body and mind is not only metaphysically absurd, but also logically it sounds odd that a person is compounded of two entities or substances. Persons are unique individuals having the sense of 'I' which stands for the concrete being called the person. The person can in no case be divided into two parallel beings. I am not sure if Descartes would have accepted the person as being a compound of body and soul. He definitely did accept that persons have a dual nature both being materially constituted as a body and having the essential nature of a mind or soul.

I believe that a person is essentially a thinking or minded being because it is not possible to describe a person without attributing to him or her the essential and constitutive attribute of thought and other related activities. If the body would have been the only or the essential characteristic of being a person, then it would have been difficult to distinguish human persons from

the physical bodies. Cartesianism is a revolt against the materialist notion that persons are bodies, albeit complex bodies of some sort.

THE AUTONOMY QUESTION

Persons are autonomous beings in that they are self-characterizable and in a sense self-complete. One argument behind Strawson's notion of person as a primitive concept is that persons are autonomous so far as the identification and descriptions are concerned. But not so are mind and body; they need a person to be described intelligibly at all. Therefore I concede that at least the human mind has a partial autonomy in view of the fact that mind comes closer to the essential description of a person. That is, in Strawson's words, the P-predicates cannot be ascribed to anything other than a person whereas the M-predicates have ascriptive use elsewhere as well. This shows the partial autonomy of the P-predicates.

However, I am forced to admit that the P-predicates cannot be made completely independent of the M-predicates for the reason that we cannot ascribe a mental activity to a person unless a physical activity is also presupposed. This is owing to the reason that mental activities are causally dependent on the body in so far as their actual operation is concerned. Metaphysically speaking, the mind is partially autonomous of the body, but as a matter of scientific fact, the mental activities are triggered by the bodily states as well, e.g. brain states. There is no reason to deny that the brain is an important instrument of mental operations. Thus there could be a reconciliation between the partial causal dependence of the mind on the body with its partial autonomy. The mind is not only influenced by the body but also influences the body. However, so far as persons are concerned, there is no reason to deny that they are ontologically basic and that they are self-complete beings.

Goswami alleges that I am 'in the same labyrinth as Descartes as both want to grant autonomy to both mind and the person at the same breath' (p. 220). Though it may be true of Descartes that he grants autonomy to both mind and person, I have deliberately tried to grant only partial autonomy to the mind while granting full autonomy to the person. The reason is that persons cannot be dependent on the body at all whereas the mind definitely has causal interaction with the body. I do take into consideration the scientific facts which show that body and mind are in a close causal nexus.

However, my understanding of persons as minded beings contains the Cartesian suggestion that persons are uniquely characterizable in terms of mind because that is how persons are believed to be introduced in our language and conceptual scheme. The very idea of a person is the idea of somebody doing a certain set of activities identified as mental activities. Therefore the reference to mind cannot be ruled out from any description of the person. But this reference to mind is not 'to break up the person' (p. 221) as Goswami alleges. The breaking up of the person occurs only when we say that mind is the person, but not when we say that person is a minded being. In fact I avoid the alleged breaking up of the person by suggesting that persons are not minds but minded beings.

Goswami fears that any reference to mind will project the person as a 'trans-bodied entity' (p. 221). But this need not be the case because the description of a person as a 'minded being' does not suggest that persons are trans-bodied. This expression keeps open the fact that persons have other features as well such as having a body. However, if someone says that persons are minds and minds only, then there could be the suggestion that persons are unembodied or trans-bodied entities. But this is a suggestion I completely reject. Persons have bodies but this fact is not the essence of being a person. I agree with Goswami that we must retain the 'unique and unitary character of the person' (p. 221) at any cost, but of course not by eliminating all references to the mind, which is factually and logically impossible.

THE FIRST PERSON

To say that the person is primarily the first person is to say that persons alone have the capacity to use 'I' while speaking about themselves. This self-reference is very much unique about the persons. It is true, as Goswami says, that we are not born with the 'I-sense' and that we acquire it from society. But that is no argument to deny that it is only persons who have the capacity to have the 'I-sense'. This capacity is something unique to man. The human infants do not have the 'I-sense' at the time of birth, but they have the capacity for developing that sense as human infants. So one could say the human infants are not developed persons but potentially persons nonetheless. If being a person means being able to do certain mental activities including having the 'I-sense', then the human infants have the remarkable potentiality of being persons. From this of course it follows that the non-I-speakers like

cats and dogs can never be persons, nor do we expect them to be so except in stories and fictions.

If having the 'I-sense' is unique to persons, it goes without saying that persons are conscious beings. Being minded implies being conscious. That is because the performance of mental activities presupposes consciousness as a basic attribute of being a person. I cannot imagine what a non-conscious person will be except the fact that a conscious person may lose consciousness under certain circumstances. In this sense being conscious is constitutive of being a person. Insane persons are therefore conscious persons as minded beings. If insane human beings are not persons why call them insane at all? Insanity is only derangement of mind and not absence of mind at all. Similarly, infants are potential persons inasmuch as they are not fully minded beings. They are conscious nonetheless in the sense that the potential minded beings that they are, they have the innate capacity to have the 'I-sense'.

'THE AMPUTATED CONSCIOUS LITTLE FINGER'

Goswami's example of the amputated conscious little finger does not seem to be a perfect counter example to my idea of persons as conscious beings. I do not take consciousness as another ordinary feature of person as his having hair on his or her head. Consciousness is the defining feature of a person in that he or she could not be a person if he or she does not have the 'I-sense' and does not perform other conscious activities. But from this it does not follow that anything and everything becomes a person like Locke's talking parrot or Goswami's amputated conscious little finger. Neither the parrot nor the little finger is going to be a person in my sense. Only human beings qualify to be persons in the sense that they alone are naturally endowed with the capacity for being minded beings.

My concept of a person includes the thinking men who are also otherwise capable of highly complex mental activities. It is these natural beings who otherwise have the tendency to rise higher in consciousness and so they alone can be the persons. Hence persons are to be defined as minded beings. But this does not deny that personhood is applicable to our 'organic empirical existence' (p. 221). Persons are organic entities no doubt but that does not reduce them only to material bodies. Goswami believes that the 'personal body' is different from the 'material and inanimate body' (p. 220) and thus the person is essentially a bodily existence in the former sense. But this fact of organic existence does not conflict with the person's being a minded being.

I have no intention to deny the organic existence of a person, but the organic existence cannot be the defining property of a person. In this sense the amputated little finger is an organic existence but that does not make it a person. It is definitely a part of a person's body.

THE BODY

In my account of person I have not denied that a person has a body which may be called a personal or human body. I, however, do not think that the body itself can be the defining property of a person. Therefore Goswami is right in saying that I deny 'the role of the body in forming the personhood of a person' (p. 218). But if he means by this that I deny the presence of the human body altogether, he is wrong because I agree with Strawson that persons can be described as having mind and body. My only concern is to refute the view that persons are nothing but material bodies, even in the sense that they are living bodies. I reject the metaphysical thesis that persons are just organic bodies and nothing else.

If persons would have been co-terminus with their organic bodies, then we would have accepted that the person dies with the death of his body. I believe that persons outlive their bodies in the sense that the life of a person is longer than that of the body. It is not that the person lives like a disembodied ego after death, but that he continues to be referred to as a 'former person' (to use Strawson's pharse). Both commonsense and social practice vouchsafe for the fact that persons are not their bodies. As Goswami himself admits, to embrace a friend is not to embrace a body, but a person. Similarly, to talk to a person is not to talk to a body. Even in death it is not the body which dies but the person. It is therefore wrong to identify the dead body as the former person. The dead body is still referred to as the body of Mr X who is dead. These usages of language definitely suggest that persons are not to be identified with their bodies.

Whether we like it or not, we transcend the body while talking about the person or the self. It is nothing metaphysical to identify the person with the self who is supposed to be the thinker and user of language. If language use and thinking could be proved to be just the features of the body, then our conceptual scheme would break down. The concept of a person in that case will cease to operate thus leaving no room for our references to other human beings as persons at all. Even the very idea of a person as a 'total and complete being' will have no place in our language.

Goswami's idea of a person as a unitary being has been too narrowly defined to exclude all reference to mind and body or their equivalents. But this leaves the person indescribable and mysterious. Then, in that case, the person cannot be 'an empirical being' (p. 221) as Goswami claims. An empirical being must be empirically described to say the least. If the options before us are that we describe the person as a thinking being or as an organic body, then I will choose the former option. Hence it is necessary that we concede that persons are minded beings rather than living bodies of some sort.

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Comments on the article entitled 'Yajña and the Doctrine of Karma: A Contradiction in Indian Thought and Action' published in the *JICPR*, Vol. VI, No. 2

Professor Daya Krishna in the Chapter 'Yajña and the Doctrine of Karma' in *Indian Philosophy: A Counter Perspective* New Delhi, 1991 points out that *yajña* is actually performed by the priest but the fruit thereof is received by the *yajamāna*. Professor Krishna considers that this leads to a serious anomaly: the actual doer of the *yajña karma*, the priest, does not get the fruit of his *karman*, and the *yajamāna*, who does not actually perform the *yajña karma* is the beneficiary of the fruit of *yajña karma*. This anomaly is similar to that also found in the *śrāddha karma*: *śrāddha* is performed by the descendants of the deceased but benefit of the food offerings goes immediately to the *brāhmaṇas*, who conduct the ceremony but eventually to the *pitṛ*, the departed soul of the deceased ancestor. In this article we explain that this *prima facie* anomaly arises because we do not distinguish between moral acts and ritual acts, between *puṇya* and *pāpa karma* on the one hand and *yajña karma* and *śrāddha karma* on the other.

VEDIC YAJÑA KARMA AND THE CLASSICAL DOCTRINE OF *KARMA*

Yajña as prescribed in the *Yajurveda* and the *karmas* or more precisely the *yajña karma* prescribed in the *Brāhmaṇas* are fundamentally, rather geneti-

cally, different from moral or ethical *karma*, *puṇya*, and *pāpa*, *sukṛta*, *duṣkṛta*, as propounded in the *upaniṣads*, Buddhism and Jainism and the later *śāstras* except the Pūrvamīmāṁsā.

Yajña Karma is ritual *karma* or an amoral act which has to be performed strictly in accordance with the prescribed procedure (*vidhi*) in the *Brāhmaṇas* and with the prescribed instruments and with the offering of the specified sacrificial materials: the sacrificial altar or *vedi* on a selected piece of land and built of bricks to prescribed dimensions: special wood has to used for making the fire which has to be kindled in the manner laid down. Offerings of materials, including *bali* or sacrifice of animals, have to be made by qualified priests to the recitation of *vedic mantras*. The *Brāhmaṇas* or the manuals of rituals lay down when, where, and how to perform and who is to perform a *yajña karma*. The ethical or moral *karmas*, on the other hand, are essentially mental and physical acts which do good or ill, help or harm to fellow creatures. There is no regulation as to when, where and how the ethical acts are to be performed.

The fruit of *yajña karma* is a beneficial potential, known in Pūrvamīmāṁsā as *apūrva*, which is received by the soul of the *yajamāna*, the person who performs or arranges performance of *yajña*, after death in *svarga loka*, heaven.

The fruit of ethical *karma*, the *kārmic potential*, which may be beneficient or malefic, is also enjoyed by the *kartā*, that is, the doer of the act/acts in subsequent rebirths in different *yonis*, forms of existence, men, animals and plants, in this *loka*, *bhūloka*. In fact the quality of *karma*, good or evil, determines the *yoni*, form of rebirth and the happiness and suffering an embodied soul experiences. Later the potential produced by ethical acts or *karmas* came to be known as *adṛṣṭa* as distinct from *apūrva*, the beneficial potential of *yajña karma* or ritual acts.

KARTĀ OF RITUAL AND MORAL *KARMA*

The *kartā* of *yajña karma* (ritual act) is the *yajamāna* though it may actually be performed by priests; the *kartā* of moral acts is the person who actually does the act.

An analysis of the structure of *yajña karma* will establish the author of that *karma*.

THE STRUCTURE OF *YAJÑA KARMA*

(i) The essential ingredients of a *yajña*, sacrifice:

(a) *Yajñānta*, the end or purpose of sacrifice, such as attainment of heaven (*svarga kāmo yajeta*), birth of a son (*putreṣṭi*), averting harm etc. Therefore, the *yajñas* are propitiatory, expiatory (*prāyaścitta*), purificatory, supplicatory (*kāmya*) and protective. They may be for the benefit of a person or an individual, a family, *gṛhya yajña* or *agnihotra*, or public, ruler and the community, *śrauta yajña* such as *rājasūya* (consecration of the king), *aśvamedha*, (territorial expansion), for rain to avert drought etc.

(b) *Yajamāna,* the sacrificer, the patron who organizes the performance of the sacrifices. He pays for the entire operation—construction of the fire or sacrificial altar, the materials or things to be offered as sacrifice, the remuneration to be paid to the *ritviks*, who actually perform the sacrifice on behalf of the *yajamāna.* He is the *svāmin* or *yajñapati* the lord, principal, of the sacrifice.

(c) *Ritviks*, the professional priests who actually conduct the sacrifice. The public or communal sacrifices were very complex involving knowledge of procedures for construction of sacrificial altar, the materials to be offered as sacrifice, the *mantras* to be recited during the performance etc. So these sacrifices required the employment of 16 priests: *adhvaryu*, who recites the *yajus*; the *yajurvedin* who also makes the sacrificial altar, the utensils and the sacrificial materials, kindles the fire and kills the animals to be sacrificed; the *hotṛi* who pours the oblation; the *Ṛg Vedin* who recites the *mantras* of the *Ṛg Veda* and offers the oblations of sacrificial material to fire; the *udgātṛi*, the *sāmavedin* who chants or sings the verses from the *Sāmaveda*; *brahman*, a *trivedī* who knows the three *vedas*, supervises the performance to ensure that it is strictly in accordance with the rules of the sacrifice and there are no procedural errors. He has been called the 'physician' of the sacrifice.

Each of these priests could be assisted by three juniors who are specialists in the respective *veda.*

Thus there are a minimum of 4 and a maximum of 16 priests employed for performance of *śrauta* sacrifices (4 priests in *iṣṭis*, 5 in *caturmāsya*). Optionally a 17th priest, *sadasya* could also be appointed. His function appears to have been similar to that of the *brahman.*

Only in the case of domestic or *gṛhya yajña, agnihotra*, either the *yajamāna* may perform the *yajña* himself or employ one *ritvik*, the *adhvaryu.*

The duration of a sacrifice may vary from 1 day to many days. A *sattra*, a community sacrifice, may last from 12 days to 100 days or even more.

(d) *Dakṣiṇā*, the fees payable to the officiating priests by the sacrificer, the *yajamāna*.

(e) The Vedic *devatā*, god, to whom the sacrifice is offered through *agni*, fire.

From the point of view of the effectiveness of a *yajña* in achieving its purpose, the core ingredients are:

(i) the *devatā* to which the sacrifice is offered.

(ii) *tyāga*,[1] offering, surrendering, renunciation of the sacrificial material (*dravyam*) to the *devatā*, e.g. *agnaye idam na mama*: this is for Agni, not for me. Similar formulae are uttered for other *devatās*, substituting the name of the particular *devatā* in place of Agni, as the case may be.

It would be evident from the structure of *yajña karma* that *yajamāna* and not the *ritviks*, is the *kartā,* the doer of the ritual *karma*. The *ritviks* perform the *yajña karma* as the agents or proxies of the *svāmin*, the principal, who is the *yajamāna.* That is why the *ritviks,* as agents, receive *dakṣiṇā* or fees for their services, and the *yajamāna* gets the spiritual benefit, *apūrva*, in heaven.

The relation between the *yajamāna* and the *ritviks* was that of 'master and servant', of the 'hirer' and the 'hired', of 'principal and agent'. This is conclusively established by the *Jaimini Sūtras* and the *Śābara Bhāṣya* thereon.

Jaimini Sūtra III 8.1 says: *svāmikarma parikṛayaḥ karmaṇastadarthatvāt.* It is the work (duty, responsibility) of the master (*yajamāna*) to hire (*parikṛayaḥ*, purchase, buy) the *ritviks*, as the *karmaṇa* (*yajña karma*) is for the master's purpose (benefit). Further *Jaimini Sūtra* III 8.26 affirms that the fruit of the *yajña karma* accrues to the *Yajamāna*: *svāmino ... tadarthatvāt*—(it is) performed for the purpose or benefit of the master (*svāmin*, *yajamāna*).

The *Śābara*[2] *Bhāṣya* on this *sūtra* discusses the question: 'Are the priests (*ritviks*) to be purchased by the Adhvaryu (the principal *ritvik*) or by the master (*yajamāna*)? In reply, the *Bhāṣya* enunciates the *siddhānta*: 'The purchasing (hiring) is the function of the Master ... as the performance is for his purpose (benefit), i.e., it is the sacrificer (Master of the sacrifice) who desires to obtain the results (that are to follow from the performance of the sacrifice); in ordinary practice when a man desires to obtain certain results from the performance of an act, he has to do that act himself; ... if he purchases (secures on payment) the services of other persons (to help him in the performance) he is regarded as doing it himself. Under the circumstances, if he were not to do the purchasing (and if it were done by someone else), he could not be doing the main act himself ...' Likewise in the case of simple ritual acts like the domestic *agnihotra* or where the *yajamāna* is qualified to perform a *yajña* such as a *rājarṣi*, or sages like Viśvāmitra and Janaka, no *ritvik* needs to be engaged to perform the ritual acts. Hence no *dakṣiṇā* becomes payable to anyone; the *gṛhapati*, the lord of the household, is both the *ritvik* and the *yajamāna*.

Again if the *yajamāna* does not give the *dakṣiṇā* or the *dakṣiṇā* is inadequate, the *apūrva,* of the *yajña karma* is destroyed (*prakṣāma*, burnt). According to *Manu* XI 38–41, failure to give adequate *dakṣiṇā* results in loss of the *yajña phala*, fruit of sacrifice. If the *tyāga* of the oblation were to result in renunciation of the *yajña karma phala*, that is *apūrva*, in that case *yajamāna* would be under no compulsion to pay the *dakṣiṇā* to the *ritviks*. This proves conclusively that *tyāga* in the course of performance of ritual *karmas*, involves only parting with, giving away, the offerings only and not of the beneficial potential that is likely to accrue. Professor Daya Krishna treats ritual acts or *yajña karma* as *pari materia* with ethical *karma*, *puṇya* and *pāpa karma*. This leads to another serious contradiction in the classical doctrine of *karma*: the *ritviks*, priests perform the *yajña karma* but the *phala*, *apūrva*, accures to the *yajamāna* who pays for the performance of the ritual *karma* but does not actually perform that *karma*. To quote Daya Krishna: 'The hard core of theory of the *yajña* is that one can reap the fruit of somebody else's action, while the hard core of the theory of *karma* denies the very possibility of such a situation even arising in a universe that is essentially moral in nature.'[3]

There is clear scriptural evidence to show that *yajña karma* was considered to be fundamentally different from ethical *karma*.

The *upaniṣadic* doctrine of *karma* was an assault on the *brāhmaṇic* doctrine of *yajña karma* or ritualistic *kriyās*. It denounced the utility of performing *iṣṭāpūrta*, that ritual knowledge leads to darkness and not enlightenment, and postulated that ritualistic *karmas* were an impediment to liberation. In fact the *upaniṣads* condemn *yajña karma* as useless.

It would be evident that the hardcore of the *vedic yajña karma* is the performance of rituals to produce beneficial potential, *apūrva*, which can be enjoyed by the soul of a deceased *yajamāna* who had performed it, in *paraloka*, heaven. The *kartā* or doer of ethical *karma* produces a potential which fructifies or

is experienced by the doer after rebirths in this *loka*. Again the actual performance of ritual *karma* was done by *ritviks* as proxies of the *yajamāna*, whereas an ethical *karma* is performed by the person who actually does that action. The two types of *karma* are entirely different.

For a fuller understanding of this issue, it is expedient to consider the new forms of *yajña karma* (ritual *karma*) which the Mīmāṃsakas had evolved after the cult of *vedic yajña karma* declined when the *upaniṣads* and Buddhism and Jainism denounced them as useless and as impediment to achievement of *mokṣa* or *nirvāṇa*.

The Pūrvamīmāṁsakas were the inheritors of the *vedic* Brāhmaṇical cult of *yajña karma*. It is also called Karmamīmāṁsā inasmuch as it taught the supreme importance of the performance of ritual acts for attainment of the material goals of life and of *mokṣa*. After the *vedic* Brāhmaṇical cult of *śrauta yajñas* was discarded, the Mīmāṁsakas evolved the rituals of *nitya* and *naimittika* and *kāmya karmas*. These *karmas* are mandatory *karmas* enjoined by the scriptures. They have no ethical content. They are a post-*vedic* version of the *vedic yajñas*. Their performance was the primary duty of the *gṛhasthas*, householders, belonging to the three high castes. Ethical *karmas* are performed by all members of the society; they are not caste and *āśrama* based. The *dhārmika* or *śāstrika nitya*, *naimittika*, and *kāmya karmas* are the neo-*yajña karmas*. The performance of *naimittika* and *kāmya karmas* may generally necessitate the engagement of a *purohita* (priest) to ensure conformity to the *vidhi*, manual of rites, and recitation of the relevant *mantras*. These *karmas* are, so to say, the *śāstrika* or *paurāṇic* form of the *vedic yajña karma*. Their *apūrva* is the neo-*iṣṭāpūrta* of the *vedic* sacrificial *karmas*.

The relevant point is that the *purohita* is just an intermediary, an agent acting on behalf of the person who arranges the performance of these *śāstrika karmas*. The *purohita* gets his *dakṣiṇā* but the *kartā*, the principal, receives the *spiritual benefit*.

Another category of ritual *karmas* is the *śrāddha karma*, more precisely the *piṇḍapitṛ yajña*, the *vedic* ritual of ancestor worship involving offering of *piṇḍas*, oblations of food balls, to provide nourishment to one's deceased ancestors. This rite was performed monthly on the new-moon day and was in the nature of *śrauta karma*. It was the later-day post-*Vedic pitṛ śrāddha*, classified as *naimittika karma*. The ancestors so worshipped are solicited to give health and wealth, in return, to the decendants.

Here again *śrāddha* is actually performed by *brāhmaṇas* on behalf of the kinsmen of the deceased; the *brāhmaṇas* also consume the offerings of food and drink meant for providing nourishment to the *preta*, the unembodied soul of the deceased.

Here also the *brāhmaṇas*, who perform the *śrāddha* rites, act as the agents of the kinsmen of the deceased who make offerings of food and drink to appease the *pretas* of their forefathers.

In brief we must distinguish between ethical *karmas*, good and evil, *puṇya* and *pāpa*, on the one hand and amoral ritual *karmas*, *yajña karma* and *śāstrika* (*nitya*, *naimittika*) and also *śrāddha karmas* on the other. In the case of ethical *karmas*, the doer bears or enjoys the consequences of those *karmas*. In respect of ritual *karmas*, the priests, who may perform them, get *dakṣiṇā* from the person on whose behalf they perform them and the latter receives the spiritual benefit.

Notes and References

1. The doctrine of *niṣkāma karma* of the *Bhagavadgītā* (*B.G.*) also speaks of *tyāga* of a person's *karma phala* (fruit of action). It is considered expedient to distinguish between the *tyāga* in *yajña karma* and *tyāga* of the *B.G.* The word *tyāga* is derived from the root $\sqrt{tyak}$ or $\sqrt{tyaj}$ (left, abandoned). The word *tyāga* means leaving, abandoning, forsaking, giving up, resigning, gift, donation. It does not mean *karma phala tyāga* of the *Bhagavadgītā*.

   In the context of *yajña karma* the word *tyāga* merely means that the *yajamāna* or the *ritviks*, on his behalf, renounce(s) in this birth the sacrificial material, *dravya*, in favour of the *devatās*; there is no renunciation of the fruit or beneficial potential of *yajña karma*, which is *apūrva*.

   Karma whose *phala* is surrendered or renounced in the *Bhagavadgītā* is not ritual *karma*; it is *sukṛta* or *puṇya karma*, moral act and renunciation is of the *adṛṣṭa* in future birth or births.

   The postulate of *niṣkāma karma* or more precisely *karma phala tyāga* is the unique contribution of the *Bhagavadgītā*. All schools of Indian religions and philosophy, except the Cārvākas, believe that all *karmas*, good or evil, are a source of bondage of the soul. The results or fruits of accumulated *karmas* must necessarily be experienced in a soul's subsequent births or embodiments in different forms of life which themselves are determined by the *karmas*. In consequence, accumulated *karmas* are responsible for a soul being bound perpetually to death and rebirth, *mṛtyu* and *punarjanma* and suffering inherent therein. To attain *mokṣa* or *mukti*, liberation from birth and death, a person has to cultivate *tṛṣṇā nirodha*, abandoning desire, and *karma nirodha*, abandoning *karmas* or *kārmic* activity. The *Bhagavadgītā* recognized the impracticability of the philosophy of inaction. The *Bhagavadgītā* also recognized that man

cannot remain inactive constitutionally—it is inherent in the nature of man that he must always be doing some *karma*. So the *Bhagavadgītā* postulates that if a man does *niṣkāma karma* in place of *kāmya* or *sakāma karma,* his *karmas* will be sterile and there will be no bondage to *karma* necessitating rebirth: he will attain *mokṣa* or *mukti* from rebirth through *karma phala tyāga*. The *tyāga* of oblations or sacrificed material in *yajña karma* is not in the nature of *karma phala tyāga*; it is not *tyāga* or renunciation of the *apūrva,* the result of a *yajña karma.*

2. Ganganath Jha: *Śābara Bhāṣya*. Translated into English, Baroda, 1973, Vol. I, p. 659.
3. Daya Krishna: '*Yajña* and the Doctrine of *Karma*' in *Indian Philosophy: A Counter Perspective*, New Delhi, 1991, p. 175.

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Agenda for Research

Questions of morality are generally discussed in respect of actions of an individual, and not of groups or institutions or political entities such as nation-states. There is, of course, some sort of a value judgement on the actions of groups and institutions and an attempt to regulate their behaviour as they function within the jurisdiction of a polity which has control over them. The relation between polities, however, is not usually governed in such a way as they are supposed to be sovereign in character.

The emerging political reality at the global level, however, has already brought into being a multitude of supra-national legal orders which yet are not enforceable because of the fact that nation-states treat themselves, and are treated by others, as 'sovereign' in character.

The problem of moral values and norms that should govern this relationship between a plurality of equally sovereign and independent states deserves exploration, particularly in the light of the global situation emerging today.

DAYA KRISHNA

Focus

The philosophical traditions of China are practically a *terra incognita* to most students of philosophy in this country, even though China has had as ancient a tradition of philosophizing as India has had during two and a half millennia of recorded history.

The following two works by David Hall and Roger T. Ames and A.C. Graham are remarkably lucid expositions of Chinese thought which may help in lessening our ignorance of this great tradition of philosophizing in a neighbouring civilization.

1. *Thinking Through Confucius*
   State University of New York Press, 1987
2. *Disputers of the Tao: Philosophical Argument in Ancient China*
   Open Court Publishing Company, La Salle, Illinois, 1989

Strangely, the works not only throw light on the Chinese philosophical tradition, but also help us in understanding our own tradition better.

DAYA KRISHNA

Notes and Queries

(A) NOTES

(a) A bibliography of Wittgenstein's published Writings

An exhaustive note on Wittgenstein's published works, some of which were originally written in German and then translated into English while others were directly written or spoken in English, is given below as it may prove useful to students of his work in the country.

During his lifetime only the following were published:

Review of P. Coffy's 'The Science of Logic', *Cambridge Review*, XXXIV (1913). This was written in English.

Tractatus Logico-Philosophicus, Routledge, 1922. This was written in German and was translated into English by C.K. Ogden. A new translation of this work was done by David Pears and B.F. McGuinness. It was published in 1961.

'Some Remarks on Logical Form', *Proceeding of the Aristotelian Society*, IX (1929). This was written in English.

Worterbuch fur Volksschulen, published by Holder-Pichler-Tempsky in 1926. 'Letter to the Editor', *Mind*, 42, 1933.

The following are the works of Wittgenstein which were published after his death. They have been edited by his literary executors.

Notebooks 1914–1916. This is written in German and contains the notes dictated by Wittgenstein to Moore in Norway. The *Notebooks* were published in 1961.

Prototractatus—An Early Version of Tractatus Logico Philosophicus. This is written in German and was published in 1971.

'A Lecture on Ethics', *Philosophical Review*, LXXIV (1968). The lecture was delivered in English.

Philosophical Remarks. This was written in German. The German edition was published in 1964; the English translation was published in 1975.

Philosophical Grammar. This was written in German. The German edition was published in 1969; the English translation was published in 1974.

Philosophical Investigations. This was written in German. The German edition and its English translation were first published in 1953. The

second and third edition were published in 1958 and 1967 respectively. The translation is available in Hindi. Hindi translation was published in 1996.

Remarks on the Foundations of Mathematics. This was written in German. This was first published in 1956. Its revised edition was published in 1978.

Zettle. This was written in German. It was first published in 1967. Its revised edition was published in 1981.

Remarks on Colour. This was written in German. This was published in 1978.

On Certainty. This was written in German and was published in 1969. **Hindi translation with English version on facing pages was published in 1998.**

Culture and Value. This was written in German. The German edition was published in 1978. The English translation was published in 1980. The revised edition was published in 1998. **Hindi translation of the revised edition with English version on facing pages, was published in 1998.**

Remarks on Frazer's Golden Bough. These were written in German and were published in 1979.

Remarks on the Philosophy of Psychology, Volume I and Volume II. These were written in German and were published in 1980.

Last Writings on Philosophy of Psychology, Volume I and Volume II. These were written in German and were published in 1982.

The Blue and Brown Books. These were dictated to select students in English and were published in 1958.

Lectures and Conversations on Aesthetics, Psychology and Religious Beliefs edited by Cyril Barrett. These are lecture notes taken by students. The lectures were delivered in English.

Besides the above there are many lecture notes published by students who attended Wittgenstein's lectures at different times. These include:

Wittgenstein Lecture, Cambridge, 1930–32, published in 1980.

Wittgenstein Lecture, Cambridge, 1932–1935, published in 1979.

'Wittgenstein's Lecture in 1930–1933' published in *Mind*, Vol. 63, 1954 and Vol. 64, 1955.

'Wittgenstein's Notes for Lectures on "Private Experience" and "Sense Data", *Philosophical Review*, July 1968.

Wittgenstein's Lectures on the Foundation of Mathematics: Cambridge 1939, published by Harvester in 1976.

Wittgenstein's Lectures on Philosophical Psychology 1946–47, published by Harvester in 1988.

The correspondence that has been published under the title *Ludwig Wittgenstein: Cambridge Letters* was mostly carried out in English:

Letters to Russell, Keynes and Moore published in 1974;

Letters from Ludwig Wittgenstein published in 1967.

Letters to Ludwig von Ficker published in 1979.

Some Letters of Ludwig Wittgenstein, Hermathena, 1963.

Some Hitherto Unpublished Letters from Ludwig Wittgenstein to Georg Hanrik von Wright, The Cambridge Review, 28th February, 1983.

All the works which were in German have been translated into English and many other European languages. Most of the works are also available in Russian, Chinese, Korean and Japanese languages. Hindi translation of *Tractates Logico-Philosophicus, Philosophical Investigations, On Certainty, Culture and Value are available.* The English translations of all the works of Wittgenstein with the exception of *Tractatus Logico-Philosophicus* are published by Blackwell Publishers.

I am not aware of any study which tries to compare and contrast the content of the lectures which were delivered in English and the books which were originally written in German and later translated into English.

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(b) Can a Niṣhkāma Karma have really no effects?

By almost all modern writers on classical Indian Philosophy, it has been taken as an axiomatic or an almost axiomatic truth that an action done with absolutely no desire for any consequence of it (a niṣkāma karma) does not produce any effect, good, bad or good-bad, to experience which its doer would have to be reborn after his physical death. It would be like a fried seed which does not germinate to grow into a plant. Let us call a rebirth-causing effect a moral effect. It is also admitted, however, that a niṣkāma karma would still be a cause which would produce an empirical effect, as a sakāma karma, an action done with a desire to produce a particular effect, would. Let us call this kind of effect naturalistic. Assuming that Arjuna fights the Mahābhārata war in a niṣkāma way, his arrow hits unarmed Karṇa's neck, cuts off his head, and kills him as a sakāma act of targeting him by the great archer Arjuna would have done. But Kṛṣna would say it would not have any moral effect requiring Arjuna to be reborn because he has killed him in a niṣkāma way. But why does a niṣkāma karma not have a moral effect, does not seem to have been raised in the Indian Philosophical tradition, what to speak of its having been satisfactorily, or even half-satisfactorily, answered.

Secondly, a desire is a feature of the psychology of a person, of that of the a gent in the case of an action. Therefore, only he knows, and none else, whether or not he has one is doing an action.

Thirdly, in the case of an unconscious desire, or of self-deception, even the agent may not know that he has a desire to get a particular result by doing an action. Therefore, as a general case, no outsider, and in the latter cases, not even the agent himself, would be able to authentically know that an action of his is niṣkāma. This means that neither the concept of niṣkāma karma, nor a niṣkāma karmi is instantiable with certitude, making the prescription of niṣkāma karma unusable or inapplicable. A prescription which cannot be acted upon, since 'ought' implies 'can' would naturally become void or defunct.

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B. (1) Reply to Query 'How can there be such a discipline as Philosophy of Science?' published in the *JICPR* Vol. XVI No. 3

The demarcation problem of science, indeed was one of the chief motivations of early Popper but so was understanding the phenomenon of science specially its ontological commitment. The first is usually concerned with the distinction between science and non-science but the other, the problem of the ontological commitment of science is known as the problem of realism as opposed to operationalistic or positivistic interpretation of science.

Let us first take the demarcation problem. Popper first formulated this not only in the context of the phenomenon we call science; he had a deeper intention. Non-scientific propositions are based on unchangeable beliefs. Therefore in the absence of some strong requirement which distinguishes science from religion, it was assumed, we'll not be able to defend the objective status of scientific theories. On the other hand none of the existing theories offered any interpretation of science which allowed cognitive claims made in the sciences, that is about the world, at the same time leaving the possibility of new sciences.

Popper was working in the thirties at which time two influential views were operationalism and logical positivism. The first one succeeded in gaining some ground explicitly because of new discoveries in physics, namely, relativity theory and quantum mechanics. Both of them departed substantially from classical mechanics. The Classical picture of the world could not offer a viable interpretation of those theories. Usual notions like space, time, matter, causality took a severe beating due to the nature of the claim made by these theories. The Classical picture told us that space and time are different—indeed to believe Kant—they are forms of external and internal experience. To begin with Einstein needed a concept of simultaneity to derive his Special Theory of Relativity. But new relativity claims that they are dimensions of a 'frame' and every frame has its own time. Time-difference in one frame may be transformed to be different in a different frame. Further, Classical Mechanics posits point particles having exact space-time location. This could give us a well defined ontology since each entity is exactly identifiable in a space-time framework. Quantum mechanics, on the contrary, claims that there are essentially non-separable but, *presumably*, distinct entities like a pair of electrons having different spins. They are distinct because

they have some distinct properties but when we treat them theoretically, no separable description (wave function) is possible. Operationalism heroically offered a solution. It preached: don't think in terms of the world or the entities it is made of. Think of the operations taking place in the laboratory [Brigdeman 1960]. Everything is but codification of that activity. Science is all about that and nothing else.

So we have a solution in the form of dissolving the metaphysical question. These classical questions are non-questions now. No problem about absoluteness of space.

Questions regarding the nature of time or simultaneity are eliminated. So the fate of the questions 'what are the furniture of the world?' or 'what is nature of matter?' is irrelevant. The only philosophical activity possible was to recover the operational meaning of the scientific propositions.

The positivists started from a general Philosophy of Language armed with a theory of meaning and their typical reductionism. So they also preached that doing Philosophy of Science is to get to the meaning of sentences the theory produces. But for them meaning was 'method of verification'. So again we end up in the laboratory. Look at sentences which are verified (actually or possibly). But what can be verified? Certainly, or so they claimed, not the existence of an electron or proton or ... . Therefore talking about these entities which are, allegedly, the centres of various observable properties, need not have a place in science. They are 'theoretical terms' and should be eliminated. With them all questions about their metaphysical status are converted to non-questions. In this view philosophy of science is but a reductionist activity with the sole aim at getting to observable properties alone. But they were ready to accept only the verification theory of meaning. So all non-scientific discourses were claimed to be meaningless. The demarcation problem was solved as a consequence of the theory of meaning [for a mature view see Carnap 1967, specially the Pseudoproblem part].

When Popper [Popper 1968] was writing on Philosophy of Science such philosophical attitudes were ruling the horizons of science. He could correctly see that verificationism could not serve as the foundation of a viable Philosophy of Science; because lot of labour goes behind deciding what is observed and what is not. We need, possibly, simpler theories, to come to the conclusion. To take an example, in any experiment involving a cyclotron, we shall have to assume that we know the properties of the electrons fired at the target. But we have already used a lot of magnetism and electricity physics to do that. So what about the pure observable properties? Any meaning depending upon such observable properties is already theory loaded. Therefore there is no verification.

But, in physics at least, we do have activities like Michelson-Morley's experiment (M-M) or Millikan's oil drop experiment. It involves tiny charged oil drops in a special situation so that they remain suspended between two charged plates due to combined effects of the gravitational and electric forces. Why take such trouble? Everyone knew that Michaelson-Moreley's experiment 'proved' that classical relativity is wrong. So Popper thought that here lies the answer. Instead of verification he offered falsification as the real basis of science. The result was that he could at once explain the necessity of experiments as well as give us a ground to demarcate between science and non-science. For no religious pronouncements are falsifiable. Further, such theory allows us to claim knowledge of worldly objects because nothing was eliminated in the process of getting to the meaning of the scientific claims. On the whole therefore Popper's position was taken to be a significant Philosophy of Science.

So what was the issue? Find a place for experimentation within the activity of science so that we can allow cognitive claims made in science. But, as is well known, this apparent strength of his position was also his bane. For Lorentz came up with a theory with the additional hypothesis of universal force. This additional theory was able to take care of the null result obtained in the experiment. So did the M-M experiment falsify classical relativity? Popper sought to dub the hypothesis as *ad-hoc*. But when is a theory *ad hoc*? When it is falsifiable. Well, when is a theory falsifiable? Only when we separated all the *ad-hoc* hypotheses. Nice result it is, but we shall come back to this later.

Thomas Kuhn [1970] came into the debate at this point. He argued that even falsifiability is not all that unproblematic. For him theories are never falsified. They gradually die out. A theory is accepted or rejected in a paradigm society projects. So he was actually asking a different question; when is a theory accepted in a social paradigm?

If this little puzzle above shows anything then it is this that Popper was addressing some other issues also apart from looking for a place for experiments within the domain of science. One issue is seen immediately: that of theory change. When can we say that there is a need for theory change. Popper's preaching that a scientist should go for most far fetched conjectures and look for its falsification, can have a meaning only when we have settled this issue of theory change. Lakatos [Lakatos and Musgrave 1970], the man

who succeeded him in his chair in LSE thought he had an answer. He taught us that a theory is part of a research program and has a hard core and a periphery. This hard core is shared by all the theories of the program. It cannot be touched. What can be changed in the face of any challenge from any experiment is its outer layer. So given a core a theory may be falsified and a new hypothesis may be inducted when experiments disagree with its prediction. So Lakatos thought we have a different question to answer: when can a theory succeed another? When is there a growth of knowledge? Besides, we have now other areas to investigate, viz. what makes a hard core a hard core, i.e. question of rationality and consequently we should better devote ourselves to internal and external histories of science. So Philosophy of Science now has a different face. We now do not talk about *the Science* but *a* scientific research program. But there was this spin off. Getting to know the world through science view was again taken up recently and a battle was fought on Scientific Realism. The issue is now what motivates the activity? So the old Popperian problem is resurrected in a different form. The problem now is: What explains the behaviour of the scientists and what follows from such explanation? It was argued that realism affords the best explanation of why should one indulge in constructing and refuting scientific theories at all? If we forget demarcation and its problems, is *falsifiability* good enough reason, as a matter of fact, to explain the behaviour of most of the scientists in countless laboratories and science departments. If posed this way *falsifiability* as a criterion is hard to defend. So again there is reason to change tack. Putnam and other scientific realists took the activity of the scientists as data and thought of explaining on the basis of theory of language, more specifically a theory of reference. Indeed language is the most immediate and therefore the most dependable data we have. But Putnam & Boyd [see their articles in Leplin 1984] took it for granted that scientists describe (part of) the world. The problem is then how is it possible to describe? Or what view of the language allows us to describe?

But again this very basis of explanation was rejected by many philosophers. Van Fraassen [1980] for example rejects this very premise that scientists describe at all. For him a scientist only 'saves the phenomena'. Very often the description's view invokes the *criterion of simplicity* as a methodological rule of coming to the right description. Because as we have seen in the case of M-M experiment, there were several explanations and the simpler explanation, that of Einstein, was picked up. Einstein and many others, including Chandrasekhar explicitly argued that true description must be simple. Van Fraassen with Sellers rejected this. Nature may not have much to do with simplicity. It is just a methodological requirement. Unless we reject this there seems to be a vicious circle. Why is nature simple? Because simple descriptions (read theory) are true. What description is true? Simple descriptions are true! Reject this and we have only pragmatics of explanation to defend simple theory; therefore not defending any particular theory as true description. Acceptance of a theory is ultimately pragmatic. Simple theories are more easily unusable. So Van Fraassen has an explanation for the motivation question. But is the answer true as a matter of fact? Note that at bottom it is an empirical statement that scientists just try to save the phenomena. I am almost sure most of the scientists wouldn't accept that. In any case it is not at all clear that this is the only way to answer the motivational question. Certainly Van Fraassen's is not the only answer. What are the other answers?

Others like Larry Laudan [in Hacking 1981] thought our task is to investigate into the puzzle-solving aspect of science. For this we can look at history and try to characterize what were the problems posed and how people thought to have solved them. He thinks solving a problem might be challenge enough and a scientist might find enough in a problem to motivate him. But solving a problem is a response to understanding something which is not understood otherwise. So again distancing ourselves from the *experiment and world* view to *understanding and reason* view of some of the features we call science. In the process we have left behind verification or falsification.

At this point a different question was asked: What could really be the very subject of appraisal? To begin with, it is the activity called science of course. But even science, specially during revolutions, does indulge in a lot of methodological, conceptual debate. Methodologists are now beginning to ask: is there a pattern in the methodological debate? Pandit [Pandit 1981] thinks that methodological/metatheoretical variance at various levels should also be taken seriously. Science for him is *negative feedback controlled problem solving systems*.

However one thing is sure. Philosophers were taking scientific theories more seriously than taking them them as data for explanation. So these concepts got the prominence, viz., *Confirmation*, *Acceptance*, *Verification*, *Falsification*, *Truth*, *Verisimilitude*, *Theoretical Term*, *Theory Change*, *Rationality*, *Progress* etc. So that when Popper was apparently asking the question of the divide between science and religion he actually ended up asking the question, what makes an hypothesis *ad hoc*. Others similarly reduced the issue of verification or operational meaning.

On the other hand the inevitable consequence of taking theories too seriously led realists like Putnam to accept *internalism*. Thereby reducing his position to a kind of nominalism.

Ian Hacking and Nancy Cartwright on the other hand direct our attention to the fact that the important part of what is called science, experiments, are left behind. The question raised by Kuhn and Quine and accepted by internal realists, theory-ladenness of data is pushed too much. As if we always decide on the basis of a theory. Hacking chooses the example of Henri Bequerel's discovery of γ-rays. He just discovered that photographic plates are exposed even after remaining under cover. Did he have a theory before he discovered the exposed plates? However Hacking didn't play it too far. We have another question: did he have a theory before he recognized it to be exposed by γ-rays? However Hacking certainly brought some new blood in the debate between realist and non-realist in philosophy of science. His suggestion is not to take the overall meaning indeterminacy at face value and associated scepticism all that seriously. Instead he asks us to look for what is happening in the experiments. His slogan is: if we can use something to produce a phenomenon then it must be real.

This is what we shall have to ascertain; did we use the entity in question to produce some phenomena? If we did, then in what sense is it unreal? Putnam tried to rescue the reference and therefore realism through his brain-in-a-vat argument: If we are brains-in-a-vat then we are not brains-in-a-vat. So reference must exist out there. But what is it that exists? Putnam prescribes to 'cut it as you like'. The role of theory comes in as soon as we try to say something! Hacking almost plays the same game. It is almost an experimenter's transcendental argument. Producing a phenomenon requires doing-with. So if you are not doing-with then you are doing-with. The focus is now shifted from description to intervention. But do the theoretical underdetermination, that is internal realism, and the experimenter's determination supplement each other? That much is not available. For we do not know how to use the universal to produce some phenomena. Neither has anybody ever used *bare mass*.

Nancy Cartwright [1983] proposed a distinction between theory realism and entity realism. According to her Hacking's intervention thesis goes well with entity realism. Cartwright supplements Hacking's thesis with the additional requirement of causal efficacy. But to recognize that, we shall have to know what a cause is. Cartwright [1983] proposes that we take Mill's method of determining the cause and proceed to look for the entities. Putnam's way

to internalism was based on the Lowenheim-Skolem theorem. Cartwright rejects that. Theories, she argues, are necessarily products of idealization. 'Truth doesn't explain much.' For if a theory is true then it cannot explain. If it cannot explain then it cannot be used. Therefore, a theory with data cannot produce a consistent whole. So there is no model at all. If there is no model at all then there is no question of innumerably many models. Laws of physics lie.

But is Mill's method all that perfect? Don't we get back all the problems of confirmation we had before? In Cartwright [1978] she gets back to this question. She doesn't think that laws of physics lie. They are true now but because they speak about capacities and how these capacities play the causal role. Theories are still false but because there will have to be a layer of constructions in between phenomenological and the general laws. As an empiricist she *hopes* to eliminate this layer.

In any case several questions remains unanswered. For example, what if the theories talk about the capacities but have a difference in some respect—like quantum theory and hidden variable construction? Will it be all that easy to solve such puzzles only on the basis of 'causal efficacy'? I have some grave doubts. The possibility of causal laws may not be sufficient to *nail down* the *form* of causal laws. We'll need something in the structural level like right geometry or right logic.

Cartwright did a great job in arguing that the measurement postulate is an artifact of mathematics. But her scheme does not have a specific place for geometry or logic. The question of empiricism in logic was first raised by Quine and forcefully argued by Putnam and many others. It is argued that foundational problems in quantum mechanics can be solved using a different logic, i.e., quantum logic. It was first proposed by von Neumann, though Reichenbach proposed a three valued logic of quantum mechanics. But interpreting quantum logic itself became quite a problem. Carwright's scheme does not answer this question. I think an answer is possible if we extend her scheme. Quantum logic also explains but this explanation is structural. It shows why some systems can't fail to behave in the way they do in Quantum Mechanics. But that is a different topic [Mukherjee 1994].

We are yet to touch mathematics, chemistry, biology, statistics, economics and cognitive science. In economics we have a parallel view in Amartya Sen [see 'Description as Choice' in Sen 1983]. He also takes theories to be of instrumental value only; still true descriptions are possible. Cartwright confines herself mostly to physics, Sen limits his discussion to economics only. The question is: can we generalize?

Usual discussions about methodology of inductive reasoning depended on logical possibility. Recent work in logic and mathematics shows that this criterion of logical possibility, being intimately linked with the notion of consistency is not all that well defined. Some are of the opinion that logical possibility is not very useful in discussions about Hume's problem. Instead they find computability is a better tool to handle such situations [Glymour et al. 1987 and 1993; Kelly 1995, Gillies 1996]. So models and ideas from artificial intelligence are coming in a big way in Philosophy of Science. This I think is a big paradigm shift. Instead of asking if there is any logical way of settling admissibility and/or unavoidability of a particular hypothesis, we should ask if there is any computational reason for acceptance of the same. If not acceptability, can we have good reasons to refute a putative hypothesis with certainty using effective computability? Further, given a set of data, one may ask what new concept/concepts it might support. Even though such works are just beginning, this should be a very fruitful exercise in Philosophy of Science.

There are other areas also full of interesting possibilities. There is this very interesting question in methodology of biology regarding the nature of explanation in Darwin's *The Origin of Species*. Ruse thinks there is an explanatory core from which a wide class of facts could be obtained. But the issue of supremacy could not be settled on this account alone. There are arguments [Recker 1987] to show that a wider perspective is necessary to account for Darwin's work.

A related field is Consciousness Studies. There are claims that consciousness can be *explained away* [Dennett 1991, 1993]. However there are contrary claims (using arguments from both Philosophy of Science as well as philosophy of language) why this could not be done [Chalmers 1996].

In an interesting article McMullin [in Peacocke 1981, pp 17–57] addressed the question of the use of the *anthopic principle* in science. It is well known that this principle has it roots in theology. In particular he asks, How should cosmology relate to theology?

So my view is that Philosophy of Science does not need a clear-cut distinction between science and religion. At issue is explaining and understanding science. The debate on science taught us to take science not at face value but as data to explain and understand. What level we need to go to or we shall have to go to may not be settled *a priori*. It might very well depend upon the context. Philosophy of Science does not need essentialism. Neither does it need something like Wittgensteinian family resemblance.

Further, even theological questions might very well be important to understand science.

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2. 'Death is not an event in life...' Wittgenstein's Views on the Metaphor of Death

What exactly does Wittgenstein mean when he writes 'Death is not an event in life: we do not live to experience death' (*Tractatus*—6.431), and 'Death is not an event in life. It is not a fact of the world. If by eternity is understood not infinite temporal duration but non-temporality, then it can be said that a man lives eternally if he lives in the present.' (*Notebooks*—9.7.1916). The commentaries on the *Tractatus* do not help much. Max Black in his *A Companion to Wittgenstein's 'Tractatus'* makes only the following remarks: 'It is a sufficiently remarkable thought.'

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Explication on above

'... in life we are surrounded by death ...'
'To the extent there is courage, there is connection with life & death.'

Ludwig Wittgenstein

At the outset one must say that it would be wrong to reflect upon Wittgenstein's aphorisms, whether in the *Tractatus Logico Philosophicus* or in his other works, in isolation. In order to grasp their full import one has to see them in the context in which they are made. Wittgenstein himself exhorts his readers *ad nauseam*, and is never tired of advising them not to see the issues raised by him out of their context. So much so, that even in the Preface of the *Tractatus* he begins by saying 'Perhaps this book will be understood only by someone who has himself already had the thoughts that are expressed in it—or at least similar thoughts.' And again, 'Each sentence that I write is trying to say the whole thing ...'(*CV* p.9). Mr. K.C. Pandey misses this, and therefore his query regarding the place of a sporadic remark, or a cluster of occasional remarks on death by Wittgenstein in the *Tractatus*, in particular and his other writings in general, in the extensive context of Western Metaphysics, is misplaced.

In the *Tractatus* the remarks about death are found in the paragraphs numbered 6.431, 6.4311 and 6.4312. These are the paragraphs, which occur in the context in which Wittgenstein is labouring to enunciate the nature and 'general form' of a 'logical proposition'. The question with which Wittgenstein is concerned here is: 'why logical propositions cannot be confirmed by experience any more than they can be refuted by it.' (*TLP* 6.122) The point that he wishes to make is 'Not only must a proposition of logic be irrefutable by any possible experience, but it must also be unconfirmable by any possible experience' (*TLP* 6.122). He wishes to establish that 'The propositions of logic describe the scaffolding of the world, or rather they represent it. They have no 'subject matter'. They presuppose that names have meaning and elementary propositions sense; and that is their connection with the world' (*TLP* 6.124).

To illustrate his point Wittgenstein makes use of analogies with Hertz's Mechanics on dynamical models (*TLP* 4.04, 6.361), Law of causality (*TLP* 6.31–6.33), Newtonian mechanics (*TLP* 6.341–6.343), laws, like principle of sufficient reason (*TLP* 6.35) and finally uses the simile of death. In *TLP* 6.431 Wittgenstein states '*So too* at death the world does not alter, but comes to an end' (emphasis added). Here the words 'so too' refer to the fact that death in no way alters the world and if at all one insists that it does alter it, then that alteration is only of 'the limits of the world, not the facts—not what can be expressed by means of language' (*TLP* 6.43). In *TLP* 6.4311 Wittgenstein further elaborates his above contention by saying that 'Death is not an event in life; we do not live to experience death.' In *Culture and Value* he elaborates it further when he says: '... one can only foresee one's own death and describe it as something lying in the future, not report as it happens' (p.12). At the time death strikes a person, the person ceases to be a person anymore. Personhood is co-terminus with the occurrence of death. A person and his death cannot co-exist. This temporal relation is inbuilt in the concept of death. Wittgenstein in *Culture and Value*, rebuking the 'Philosophers who say: "after death a timeless state will supervene", or "at death a timeless state supervenes" ' tries to draw to their notice 'that they have used in a temporal sense the words "after" & "at" & "supervenes" & that temporality is embedded in their grammar' (p. 26).

Death has no subject. 'The subject' according to Wittgenstein 'does not belong to the world; rather, it is a limit of the world' (*TLP* 5.632). It is '—not a part of it' (*TLP* 5.641). For Wittgenstein, I must hasten to add, 'the world is *my* world' (*TLP* 5.62) and '*The limits of my language* mean the

limits of my world' (*TLP* 5.6). He illustrates this by taking the 'form of the visual field'. A representation of the form of the visual field does not refer to the perceiving eye. In *TLP* 5.6331 he categorically says, 'the form of the visual field is surely not like this

And nothing *in the visual field* allows you to infer that it is seen by the eye' (*TLP* 5.633). Similarly, nothing in *my* life allows me to infer that it is limited by 'my' death. Wittgenstein comparing life with visual field says in *TLP* 6.4311: 'Our life has no end just the way in which our visual field has no limits.'

To illustrate his point further, Wittgenstein takes the example of a book, which describes the world as I found it; such a book would not contain any description of the experiencing I—the subject of the book (Cf. *TLP* 5.631). One could further illustrate the concept of 'limit' by taking the example of a circle. What should be regarded as the limit of a circle? Is the inner edge of the segment forming the circumference of the circle to be treated as its limit, or is it the outer edge? The problem is further complicated by the fact that the line constituting the circumference cannot have any breadth, as a line by definition cannot have breadth. So, can we at all regard the circumference to be part of the circle, or do we have to regard it as the limit of the circle? Whichever way we may decide, it would in no way change the nature, and our understanding of circle; it can in no way change 'what can be expressed by means of language' (*TLP* 6.43). But in case the answers to the questions posed by us do change the nature of a circle then its effect would be 'that it becomes an altogether different world. It must, so to speak, wax and wane as a whole' (*TLP* 6.43).

The idea of Wittgenstein in taking the example of death in the *Tractatus* as well as in *Notebooks* is not to discuss the nature of death—a point missed by Pandey—but it is to clarify the distinction between *saying* and *showing*. Just as it can only be shown that death does not alter the world but only brings it to an end, likewise the general form of a proposition can only be shown. 'Propositions' according to him '*show* the logical form ... They display it' (*TLP* 4.121). One cannot talk about, or discuss the nature of logical form within the perimeters of language because it itself is the form

[1] Quoted in Ray Monk, *The Duty of A Genius*, Vintage, p. 139.

of language in the sense that it is what makes language itself possible. Similarly, Wittgenstein maintains, that though 'only death gives life its meaning';[1] it is death which is the limit of life and manifests in life itself. This is in keeping with Wittgenstein's conception of Philosophy namely that Philosophy sets 'limits to what can be thought; and in doing so, to what cannot be thought' (*TLP* 4.114) and that it tries to 'signify what cannot be said, by presenting clearly what can be said' (*TLP* 4.115). And one has to remember that according to him 'What *can* be shown, *cannot* be said (*TLP* 4.1212).' It is also consistent with his general thesis stated in *TLP* 6.522 namely that 'There are, indeed, things that cannot be put into words. They *make themselves manifest.* They are what is mystical.' Death too, as argued above, manifests itself in life in the sense that it is the phenomenon of death which prompts us to ask questions about life and its meaning, and that is why it has a mystical aura around it. It is mystical, as Niels Bohr puts it, because 'we are both spectators and actors in the great drama of existence'. It is also mystical because its nature and experience cannot, and I mean logically cannot, be put in words. It is like something about which the *Kena Upanishad* II.3 says:

Yasyāmataṁ tasya mataṁ mataṁ yasya na veda saḥ
Avijñātaṁ vijānatāṁ vijñātamavijanatām.

That is 'He knows It who knows It not; and he knows It not, who knows It. To the man of true knowledge, It is the "unknown", while to the ignorant It is the "known".' Rahim says about the same thing:

Rahiman baat agamya ki, kahan-sunan ki naahin,
Jo jaanat so kahen nahin, kahe so jaanat naahin.

This is 'O Rahim! one cannot talk about the nature of the inconceivable; one who knows it, does not speak about it and the one who speaks about its nature does not know it.' It is something about which not a lot of blabbering but silence is the best mode of communication. Anyone who eventually understands their true nature recognizes all talk about them as nonsensical. Wittgenstein too says the same thing when he says in *TLP* 7 'What we cannot speak about we must pass over in silence.'

I am neither sure nor competent to say whether the religions whose origins are traced to India for example, Hinduism, Buddhism and Jainism treat death as an event in the world. But if they do, then either they are saying something very tenuous or they are talking from the third person perspective

alone. It is tenuous in the sense that whatever happens to a person—even *mokṣa* or *nirvāṇa* or *mukti*—happens in the world (*jagat*) and not outside or beyond it. The best description that one may give of a *mukta*, or the one who has attained *nirvana* or *mokṣa* is that he is in the world yet he is not in it. But on the other hand, if they are talking from the third person perspective alone then they are missing one of the most vital characteristics of 'death' namely that death certainly is the limit of a person's life. It cannot be regarded from the first person perspective an event in the person's life. 'My' death, for example, from my perspective shall be the limit of my life. A moment before my death shall be an event in my life. The events and circumstances leading to my death can be painful or peaceful but the death itself can neither be painful nor peaceful. It is just an occurrence, a happening like many others and is peculiar in the sense that it brings an end to my conscious worldly life (*ihloka*); it brings down the final curtain for 'me' from the third person perspective.

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Further Observations on the Navya Nyāya View of Tautology on the Note of Dr. Raghunath Ghosh published in the JICPR Vol. XVII No. 2 p. 170–1 under the heading 'A Note on Identity Relation'

Raghunath Ghosh's objections[1] to my account and justification of the Navya Nyāya view of Tautology have been directly or indirectly answered by me in my earlier note on the view. The first general objection to the view in Ghosh's own words is as follows '... each and every object becomes *abhēda* with itself. The *abhēda* means the absence of mutual absence (bhedābhava). If it is not possible logically to say that something is different (*bhēda*) from something, it is quite natural or there is also a logical possibility of saying that something is not different from something. The first thing to be pointed out in these statements of Ghosh is the gross and repeated misuse of the Sanskrit words '*bhēda*' and '*abhēda*' in them. The right words to use are *bhinna* and *abhinna* respectively. What Ghosh urges in these statements is the fact that *abhēda* or self-identity can well be a predicate in a significant identity-statement like 'A pot is non-different or identical with itself.' Now

the statement which I have made in my note[2] runs thus: 'If however identity involved as relation in the cognition is turned into a property so that the cognition has the form "The pot is self-identical" then the cognition can well be determinate but then it will not remain tautological in the strict sense of the word.' This makes it clear that I had already anticipated the above objection and answered it by way of defending the Nyāya view. It need not be thought that the above-mentioned statement is implicitly tautological as identity is merely shifted in it from the position of relation to that of the predicated property. If there is doubt about a thing's remaining self-identical throughout its existence the above sentence can alone dissipate the doubt, not a statement like 'A pot is a pot', unless the second word 'pot' in the statement is stressed, but then the stress would signify self-identity.

Before passing to the second objection of Ghosh it has to be particularly pointed out that logic cannot dictate to common usage. The function of logic is limited to analyzing and defending the prevalent usage, finding if possible proper justification for it. Tautologies, despite their vogue in logical symbolism are never employed by sensible persons in their everyday discourse, mainly because they do not at all serve to communicate any meaning. As a matter of fact tautologies subvert the meanings of common words and so they cannot be treated even as formally true. For example the tautology '$p.p \equiv p$' employs the conjunctive symbol in an uncommon sense as there are not two 'ps' to be conjoined by the symbol for 'and'. Also nothing can have itself as its predicate which the equivalence symbol in the tautology signifies. Mathematical expressions and equations are however like the familiar identity-statement, 'The morning star is the evening star' in which the same entity is referred to by two different descriptive expressions. In the strict sense therefore mathematical expressions and equations are not tautologies.

Ghosh's second and third objections answer themselves. A present object apprehended and referred to as the same as the previously-perceived one does not instantiate tautology but recognitive judgement or statement in which the subject term is characterized by presentness and the same term as characterized by pastness functions as the predicate-term. Again in the remark quoted by Ghosh viz. 'A prasad is a prasad' the difference in meaning of the two tokens of the same word 'prasad' is so obvious that nobody would treat the remark as tautologous. What is true of the remark is also true of all those statements that are nontautological and yet are reducible to tautologies. For instance the statement 'The morning star is the evening star' is, as it stands nontautological and yet it is directly reducible to the tautology, 'The morning

star is the morning star'. Although the original statement is nontautological the statement resulting from or equivalent to it is not and need not be nontautological. The equivalence between the nontautological and the tautological statements is accountable—as in the case of the words 'morning star' and 'evening star' on the basis of the distinction of sense and reference. The statements refer to the same statement entity although their senses are not the same.

At the end it may be mentioned that all Indian philosophies distinguish the subject and predicate-terms in a significant statement as the unassertedly and assertively stated terms respectively. There can never be a change in roles of these terms without changing or distorting the meaning of the statement concerned. In tautology the subject and predicate terms can always be interchanged which means that neither plays the role that is respectively essential to them.

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Book Reviews

Bruce M. Sullivan: *Seer of the Fifth Veda: Kṛṣṇa Dvaipāyana Vyāsa in the Mahābhārata*, Motilal Banarsidass Publishers Private Limited, Delhi, 1999, pp. vii + 132, Rs 195.

This book (the second edition) is an Indian reprint of the author's book, originally published with the title, *Kṛṣṇa Dvaipāyana Vyāsa and the Mahābhārata: A New Interpretation,* by E.J. Brill, Leiden, The Netherlands, 1990. At that time while the author preferred the present title, the publishers proposed the latter one and their suggestion prevailed. But now that this second edition is published in India, the opinion of the author seems to have been duly respected. The author considered extensively revising it for publication, as so much excellent work has been done on the *Mahābhārata* (MBh) in the past decade since this work went into press originally. But, unfortunately for the scrupulous readers, he decided instead to reprint the book with only a few corrections. As a conscientious scholar, he should have opted otherwise and delayed the publication for a few months or so. However, for his academic honesty in putting the situation as it is, the author deserves our thanks.

The book contains six chapters: (i) Author and authority; (ii) The author in his own composition; (iii) The divine plan in the epic; (iv) Vyāsa as Brahmā on earth; (v) Other perspectives on Vyāsa; (vi) Conclusions; along with an Appendix and Selected Bibliography at the end.

In the first chapter, the author has taken note of some of the previous scholars who studied the MBh. Thus, in the course of a discussion regarding the age of the *Mahābhārata,* it is observed that Buhler concluded, on the basis of the concluding verses in some of the inscriptions threatening retribution upon one who rescinds the grant, that the MBh was regarded as an authoritative text on matters of dharma throughout much of India in the fifth century AD. Hopkins cited evidence indicating that virtually the whole of the MBh was in existence by AD 200. But, adds Professor Sullivan, there are a few references to Vyāsa in Sanskrit literature that predates the MBh, or is at least contemporaneous with the early phase of the epic's composition. Among these he mentions the *Sāmavidhāna Brāhmaṇa* and

the *Gopatha Brāhmaṇa* from the *Atharvaveda* tradition, and the *Taittirīyāraṇyaka* from the *Yajurveda* one, and the *Buddhacarita* of Aśvaghoṣa. While Vyāsa is rarely mentioned in the whole of the Vedic literature, he is prominent in the epic. Yet Kṛṣṇa Dvaipāyana Vyāsa is the most important author of the sacred texts in the religious traditions of the Hindus. He is traditionally credited with the arrangement of the *Veda* into four *Saṁhitās*, called *Ṛk, Yajus, Sāma and Atharva*, respectively, as well as the composition of the epic MBh, many *Purāṇas*, and other works.

As to the creation of a written text of the MBh he observes that it did not eliminate the oral epic tradition which had been its genesis, and both flourished symbiotically. Referring to the scholars who have expressed sometimes radically divergent views on the origin and development of the MBh, he quotes from Winternitz, Hopkins, Oldenberg, and notes that in the eyes of most early Western scholars of the MBh, the text developed in haphazard fashion. One reason these scholars expressed their views with such vehemence, says Sullivan, is that another scholar, Joseph Dahlmann, was simultaneously approaching the MBh with a diametrically opposed method, and was interpreting the text's origin and development in a strinkingly different way. He argued that the MBh has in fact always incorporated both the elements of a simple epic and didactic material, and attempted to interpret the apparent heterogeneity of the MBh as the product of conscious and purposeful structuring of the epic by a poet whose intention was to communicate the dharma by means of the story. He termed his approach the synthetic method and denigrated the analytic method employed by others. Both these early approaches to the MBh, says Sullivan, were somewhat immature, or premature.

At that time, Winternitz urged that a detailed examination of the whole textual tradition should be made for the purpose of determining what exactly the various manuscripts of the MBh had in common. And, consequently, in 1919 the production of a critical edition of the MBh was undertaken at the Bhandarkar Oriental Research Institute in Pune under the direction of a German-trained philologist, V.S. Sukthankar. The editors examined the manuscripts from all over India, and developed their critical principles on the model of classical philology. They knew that they were not restoring Vyāsa's original text; it was but a modest attempt to present a version of the epic as old as the extant manuscriptal material will permit us to reach. It only claims to be the most ancient one according to the direct line of transmission. The most insistent in opposition to the effort

of Sukthankar has been Madeleine Biardeau, who regards the MBh as largely the product of the oral tradition. She believes that there never was a single written text of the MBh, 'the Archetype', from which all manuscripts are evolved, but instead that the various manuscripts are simply written versions of the story. Van Buitenen defended the method of the critical edition's editors. Alf Hiltelbeitel's book *The Ritual of Battle* discusses the recent interpretations of the MBh by Wikander, Dumezil, and Biardeau while focusing on the role of Kṛṣṇa. The MBh repeatedly insists that Vyāsa is *ṛṣi*, the foremost and the only *ṛṣi*, of the epic. In the remainder of his study Sullivan has focussed on Vyāsa's actions in the epic story, and an interpretation of his significance for Hindu civilization. He has cited the text as per the Poona critical edition, as it is the most widely available text.

The account of its own transmission as given in the epic is that Vyāsa composed the story called *Jaya* (of about 8,000 *anuṣṭubh* verses in extent), and taught it to his pupils. Of them Vaiśaṁpāyana recited it as *Bhārata* (of about 24,000 *Anuṣṭubh* verses in extent) for king Parikṣita and Brahmins at a sacrifice. Later, the *sūta* Ugraśravas recited it as Mahabharata (of about 100,000 *anuṣṭubh* verses in extent) for Brahmins at another sacrifice. Professor Keshavram K. Shastri has done an excellent job of eliciting the *Jaya* version, as also the *Bhārata* version from the *Mahābhārata* version of the Poona critical edition. It is surprising that for Sullivan it is a 'futile attempt', and 'exercise in subjective judgement', since all the researches, including that of Sullivan himself, are nothing more than subjective judgements, though based on objective references. But for that very reason they cannot be branded as futile.

In the second chapter Sullivan has grouped the data on Vyāsa, scattered throughout the text of the MBh, into four categories: seer, priest, ascetic, and spiritual preceptor, each of them based on an Indian conception, and each being the function Vyāsa performs in the epic. Taken together, the data is expected to present a comprehensive picture of Vyāsa's activities as the most dharmic Brahmin of the epic. Vyāsa is often called '*a great seer*', or '*the best of seers*', or a 'wise Brahmin seer', or 'the Veda-divider', or 'the great repository of Veda', or 'greatest of the scholars of the Veda', or 'the very abode of Sarasvatī'. His alteration of the Veda, which seems such a revolutionary act, is presented as perfectly appropriate for its time. The MBh maintains consistently that only the people who learn the *Veda* have degenerated, not the *Veda* itself. For the MBh and later Hindu civi-

lization, the Vedic heritage is the collection of texts Vyāsa altered and transmitted for the benefit of benighted humanity in *Kaliyuga*. The title reminds the audience of his great deed, and of his unique relationship to the *Vedas*. He is depicted in one chapter (XII, 337.49–52) of the epic as a *ṛṣi* ordained by Nārāyana to divide the *Vedas* in every *manvantara*. As the *ṛṣi* who divided the *Veda*, but also as the *ṛṣi of* the fifth *Veda* as the MBh calls itself. As a *ṛṣi* he possessed a special faculty of vision called 'the divine vision' (*divya-cakṣu*). His omniscience was the result of his divine eye; he saw the past, present, and future as if they were before his very eyes.

As the priest (*ṛtvij*), Vyāsa performed the role in several major Vedic rituals of the Pāṇḍavas, while their brahmin chaplain (*purohita*) Dhaumya performed ordinary daily and periodic rites, and even presided at the sacraments (*saṁskāras*) for the birth, tonsure, and initiation of the children. For the rituals of imperial significance, Vyāsa was the chief priest of the Pāṇḍavas; this indicates his prominence in such rites. Before the Horse Sacrifice when Yudhiṣṭhira told him that his treasury was depleted by the war, Vyāsa knew where the gold was to be found and he told him to go to the Himalayas for the gold left over from the Maruta's sacrifice long before. The Rājāsūya and Aśvamedha rites, at which Vyāsa was the supervising priest, were the major rituals of the ancient Hindu tradition. Vyāsa is clearly the important priest in the epic.

The MBh depicts Vyāsa as a paragon of asceticism. He displays preternatural knowledge of past, present and future, the ability to appear and disappear mysteriously, and the ability to disperse boons and curses. He is depicted in the MBh as the forest-dwelling *vānaprastha* who follows the dharmic path of *pravṛtti*. He embodies certain ideals of asceticism, and is one of the major spokesmen for asceticism in the epic. *Tapas* and *yoga* overlap to some extent, and the epic uses them interchangeably at times. The omniscience of Vyāsa often affects the development of the plot in the epic. The whole of the MBh, with its disclosure about the gods, the ways of attaining emancipation and complying with the dharma, etc., as Vyāsa's composition may be seen as a revelation of his knowledge. His asceticism enabled him to perform various literary feats, such as the arrangement of the Vedic texts and composition of the MBh. While he follows the *pravṛtti* path of dharmic activity, he reveals significant aspects of the *nivṛtti* path. Vyāsa's purpose in being an ascetic was not to attain *mokṣa*, but to support the dharma. Vyāsa embodies and personifies ascetic ideals in the MBh to such an extent that Kṛṣṇa regarded Vyāsa as an exemplary ascetic.

As the spiritual preceptor (*guru*), Vyāsa is an advisor on spiritual matters to the Pāṇḍavas. His position as guru is most explicitly stated in the case of his five Brahmin pupils, Sumantu, Jaimini, Paila, Vaiśampāyana, and Śuka, who were his only Brahmin pupils. Vyāsa's importance as an advisor to the court of the Bhārata regent Dhṛtarāṣṭra and his wife Gāndhārī is quite often evident. He repeatedly advised reconciliation until the fighting actually began. Even during the war he made an attempt to reconcile the combatants. Occasionally in the course of conversation, the counsellor Bhīṣma referred to something he had been taught by Vyāsa. The most extensive discourse by Vyāsa in the MBh is actually Bhīṣma's recitation of his views on *yoga* and *Saṁkhya*. Some MBh texts explain Bhīṣma's vast knowledge with a long account of his instruction about the gods by Vyāsa. He often counselled distressed or grieving members of the Bhārata dynasty, since he was the guru not only for the Kauravas, but for his other grandsons, the Pāṇḍavas, as well. He provided guidance for the Pāṇḍavas in a purely physical sense by controlling their movements, since he was more than merely their respected grandfather. He granted various boons to deserving members of the Bhārata family and to his Brahmin pupils, and he cursed Aśvattāman, one of the staunch supporters of the Kauravas, and perhaps others as well. Vyāsa's activities in the MBh thus cover the full range of activities traditionally deemed appropriate for a Brahmin. Interestingly, the MBh does not depict Vyāsa himself studying the Veda with a guru, and is depicted as the son of a brahmin man Parāśara, and a non-brahmin woman Satyavatī, who was from a community of fishermen, and these two people were regarded as admirable.

In the texts other than the MBh, Indian civilization has recorded a variety of views on Vyāsa's behaviour. Thus, Aśvaghoṣa in his *Buddhacarita* has cited Vyāsa as an example not to be followed, and Daṇḍin in his *Daśakumāracarita* has tried to get a laugh from his audience by deriding Vyāsa. Kumārila in his *Tantravārtika*, while discussing the transgressions of dharma by twelve great men in former times, cites legal precedent and sanction. In this context, the MBh might be better described as a meditation on the difficulty of resolving the perceived conflicts between various injunctions of dharma, and Vyāsa responded to this dharmic riddle in a way that produced the greater good for the greater number of people. It may be said of Vyāsa that he speaks dharmically and his very Self is dharma. For the MBh, Vyāsa is the epitome of the dharmic Brahmin.

In the third chapter, Sullivan discusses Vyāsa's actions in the MBh in three particular crises, which have disastrous consequences, suggesting that, paradoxically, this powerful Brahmin failed in his most important undertakings. Sullivan's interpretation of Vyāsa's role in the epic is set in the context of the central myth of the epic, viz., the conflict between the gods and demons, since many of the major characters of the epic are depicted as either incarnate gods or demons, and the characters re-enact much of the mythology of the gods and demons of whom they are incarnations. The three major crises in which Vyāsa is intimately involved are: (i) fathering of flawed princes; (ii) the ritual gone wrong; and (iii) failure to reconcile the combatants. In all the three, the Bhārata dynasty suffered disastrous consequences.

In the course of discussing the second crisis, Sullivan has referred to van Buitenen who has convincingly shown that Yudhiṣṭhira was not gambling simply out of folly or greed, but of necessity; he was still bound by the ritual requirements of the Rājasūya, which included a dice match after the consecration and installations of the king. Clearly it was an integral component of the Rājasūya ritual itself. Sullivan seems to suggest that in spite of Vyāsa presiding over Yudhiṣṭhira's Rājasūya ritual, which was properly completed and the sovereignty of the king established, ultimately the ritual failed, resulting in the exile of the Pāṇḍavas, and finally concludes that charged with the duty of overseeing the sacrifice to its proper conclusion, Vyāsa instead presided over a fiasco. Here Sullivan should have rather found fault with Vyāsa for not presently appearing mysteriously before Yudhiṣṭhira and revealing to him the lack of fair play and premeditated fraud by Śakuni who rendered the dice hostile.

While discussing the third crisis, Sullivan suggests comparison with the 'three sins of the warrior' on which Georges Dumezil has written extensively in connection with the Indo-European traditions, but takes note of a striking difference between the careers of the brahmin Vyāsa and that of Dumezil's warrior, viz., that the penalty for each transgression or failure is paid not by Vyāsa himself, but by the Bhārata family. He tends to account for the similarity in structure of the mythology of the Indo-European warrior with that of Vyāsa and for the inversion in a specifically Indian adaptation of the myth replicating the roles of *Kṣatriya* patron and *brahmin* priest in the sacrifice. Sullivan thinks that interpretation of the paradoxical career of Vyāsa must emphasize the eschatological dimension of the MBh, which explicitly expresses the eschatological crisis in terms

of the war between the gods and demons. Vyāsa's activity in the MBh can most fruitfully be examined in the context of Brahmā's plan for the incarnation of all the gods, necessitated by the overrunning of the earth by demons. Vyāsa's identity with Nārāyana is not much articulated in the MBh, hence his divinity is much less apparent than is Kṛṣṇa's in the epic. Vyāsa the Brahmin and Kṛṣṇa the warrior, having different capabilities and fields of action, are complementary figures who cooperate in the divine plan. And here, Sullivan adds, Vyāsa's 'failures' may be reconsidered in light of the necessity of combating the demons.

Referring to the religious differences between the Pāṇḍavas with the Vaiṣṇava tradition in that they had Kṛṣṇa as their ally and kinsman, and the Kauravas who decisively rejected Kṛṣṇa and were having the Śaiva tradition, Sullivan presents Vyāsa as perhaps mediating between these two opposing religious traditions. Vyāsa's role in the episode of the marriage of the Pāṇḍavas to Draupadī was to reveal the subtle *dharma* within an action that seemingly was not in accord with *dharma*, showing that the *dharma* transcends the rules of the law books. He also acted as an intermediary between the gods and the Pāṇḍavas by telling the men how to secure weapons from the gods. In yet another sense his activities in the epic may be seen as mediation in the transmission of knowledge from one age to the next, from the *Dvāpara-yuga* to the *Kaliyuga*.

In the fourth chapter, Sullivan discovers that while Vyāsa is certainly depicted in the MBh as Nārāyana, or his *aṁśa*, on the earth, the epic also portrays him as corresponding in many ways to Brahmā, in that they share three important characteristics: (i) each is a brahmin who symbolically represents brahmanical orthodoxy; (ii) each creates and disseminates *Veda*; and (iii) each is called *pitāmaha*, 'grandfather', because each is the progenitor of a family that splits into two factions which fight for sovereignty. Vyāsa is the *pitāmaha* and Kauravas who fight a war often compared to the eternal war between the offspring of Brahmā, the gods and demons, of the Pāṇḍavas. Brahmā is the representative of the *pravṛtti* mode of religion as opposed to *nivṛtti*, and *dharma* as opposed to *mokṣa*. Vyāsa's activities in the epic reveal a constant concern for *dharma*, and epitomize *pravṛtti* values. Vyāsa disseminated among mankind the four Vedas, which he had arranged as an obvious parallel to the myth of Brahmā creating the four *Vedas* at the beginning of creation, one *Veda* from each of his four heads. Vyāsa also creates *Veda*; namely, the 'fifth *Veda*', the MBh. Vyāsa and Brahmā both epitomize the function of guru.

In the fifth chapter, Sullivan affords his readers different perspectives, including popular traditions about Kṛṣṇa Dvaipāyana that are found in the MBh and that may deepen our understanding of his significance in Hindu culture. Consideration of variant versions of a story found in the MBh, the *Jātaka* tales, the *Arthaśāstra*, and some Purāṇas sheds light both on the character of Vyāsa and on the evolution of the epic as well. The Mausala Parvan (Book XVI) of the MBh narrates the destruction of Kṛṣṇa Vāsudeva's kin, the Andhaka-Vṛṣṇi or Yādava clan. The account involves Vyāsa only after the event; he is depicted advising Arjuna that with the death of Kṛṣṇa Vāsudeva, the time had come for the Pāṇḍava brothers to retire from the ruling kingdom and depart on the final journey. A different version of the story is presented, however, by the Jātaka tales of the Pāli Buddhist canon. Vyāsa appears as Kaṇha Dīpāyana in three Jātaka, two of which have to do with the death of the Vṛṣṇi clan. The *Arthaśāstra* of Kauṭilya also refers briefly to the same incident, and in a very similar fashion, as an illustration of the point that a king who fails to control his senses and desires will soon perish. As their likely chronology Sullivan has put the following order: *Arthaśāstra* first, *Jātakas* and MBh afterwards. Vyāsa and the Buddha occupy similar positions within the Hindu and Buddhist traditions respectively, as the sages who formulated the Dharma of each tradition.

In the sixth chapter Sullivan concludes with a few additional remarks. Gaṇeśa, the god invoked by Indians at the beginning of so many enterprises, makes appearance at the beginning of the enormous epic. Vyāsa described his poem as comprehensive, conveying to its audience knowledge both sacred and profane, and he desired that it be put in writing. Brahmā, knowing his desire, appeared before him and gave his approval of the poem, then suggested Gaṇeśa as scribe. This scene is the explicit commendation and blessing of Vyāsa's efforts by Brahmā. As the author and revealer of the fifth *Veda*, Vyāsa is the symbol of the authority and authenticity of the MBh as a religious text. For the *Purāṇas*, authorship is attributed to Vyāsa, whose presence at the beginning of the textual tradition guarantees their value. The MBh depicts Vyāsa in some passages as Brahmā's earthly counterpart, and in other passages as a portion of Nārāyana.

In the Appendix, the author has given, in English translation, the relevant passages from the MBh, such as *Ādi Parvan* 1.55–87, XI. 8.113, and XII.337. The Selected Bibliography lists five texts and translations,

and numerous studies by about forty-five scholars. An index of citations is given at the end of the book.

The author of the book, Bruce M. Sullivan has done his homework very diligently, covering all the available studies of his predecessors, and has maintained a careful balance and a totally impartial academic outlook, in the presentation of his scholarly research findings, thus fully deserving our hearty encomiums.

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Paul Ernest: *Social Constructivism as a Philosophy of Mathematics*, published by State University of New York, 1998 (SUNY series in Science, Technology, and Society, and SUNY series, Reform in Mathematics Education), pp. xiv + 315.

Is 1 + 1 = 2 an absolute and universal truth or is it a social construction? If the former, then 1 + 1 = 2 should exclude the possibility that 1 + 1 = 0 or 1 + 1 = 1. However, it is possible to have 1 + 1 = 1 as in truth tables (OR gate), or 1 + 1 = 0 as in addition with carry in binary representation, both of which are extensively used in the construction of modern digital computers.

If, on the other hand, 1 + 1 = 2 is indeed a social construction, then this will very likely necessitate an urgent review of our methods of teaching mathematics. This in a nutshell is the focal concern of this book, which is far too sophisticated and thorough to be put into a convenient nutshell.

The formalistic school of Hilbert, Russell etc. has been very influential in deciding the nature of both mathematics and philosophy in this century. Of late, however, more and more people are moving away from absolutism in the philosophy of mathematics. In India, as usual, old Western habits die hard, so this is a book to be emphatically recommended to the Indian academic community—both philosophers, and mathematicians—especially those who believe that their degrees, their positions in academia, their publications, and other such signs of social approval, have conferred upon them the social warrant to pronounce authoritatively on truth in mathematics, and on how mathematics ought to be taught and practised.

For, when all is said and done, there is little beyond such social authority to guarantee the truth in mathematics. The absence of errors in a long

and complex proof, such as that of the four-colour theorem for instance, cannot be guaranteed, except by appeal to the authority of those who have initiated or checked the proof. More fundamentally, the *value* of a correct proof cannot be guaranteed, except by appeal to the Platonic-Neoplatonic tradition of geometry, as modified by Islamic and Christian rational theology, on the one hand, and to the 2-valued Aristotelian logic that it unquestioningly accepts, on the other. Questioning this authority ought to be of special concern to people in this country, where at least two major traditions—Buddhism and Jainism (*syādavāda*)—simply reject the logic in question. Such concerns would be particularly timely in an age of quantum mechanics, and parallel and quantum computers, both of which need different logics for their semantics.

Social constructivism also ought to be of special concern to us because the mathematics tradition in this country relates to mathematics as a practical (hence secular) matter of calculation, whereas the tradition of mathematics-as-proof has deep religious and theological roots. Thus it is well known that mathematics-as-proof sought to imitate 'Euclid's' *Elements.* But, the 5th century CE Proclus, the earliest historically locatable source for the name 'Euclid', summarizes the value of mathematics in the conclusion to part I of his prologue to the *Elements,* as follows:

> This, then is what learning (*mathesiz*) is, recollection of the eternal ideas in the soul; and this is why the study that especially brings us the recollection of these ideas is called the science concerned with learning (*mathematik*). Its name thus makes clear what sort of function this science performs. It arouses our innate knowledge, awakens our intellect ... takes away the forgetfulness and ignorance that we have from birth ... fills everything with divine reason, moves our souls towards Nous ... turns us back upon ourselves ... and through the discovery of pure Nous leads us to the blessed life.

Except for this reviewer, no other mathematician or philosopher in this country, so far, seems to have pondered on the implications of this view of mathematics as a religious doctrine.

Finally it ought to be of special concern to us because of what Paul Ernest calls the 'central plank of the "maverick" tradition' in the philosophy of mathematics, which regards mathematics as social construction, viz. that it is necessary to consider the history and philosophy of mathematics together: the history of mathematics, lacking the guidance of the philosophy of mathematics, has become visually challenged, and the other without the one is plain and simple empty! Western histories of mathematics have appropriated all worthwhile developments in mathematics, through centuries of racist fabrications. However, it is naive to counter it, as most Indian historians of mathematics have so far done, simply by claiming precedence, without examining the epistemological issues that are involved. The current-day philosophy of formalism, as noted above, is based on the historically fictitious 'Euclid', a Greek name perhaps invented by Proclus (or his immediate predecessors) to escape religious persecution. To rework the history of mathematics, it is also necessary simultaneously to rework the philosophy of mathematics in a way that takes into account the role of culture and society in mathematics, to link the context of discovery with the context of justification. Nowhere is this more evident than in the reworking of the history of the calculus, which needs a different philosophy of infinitesimals.

All these concerns, ultimately add up to a strong concern for the way mathematics ought to be taught in the future: whether as a discipline concerned with practical calculation or as a discipline concerned with producing proofs, or social warrants of justification of knowledge.

Against this background, I cannot but applaud Paul Ernest's book as a strong and comprehensive articulation of the social constructivist position. The book, of course, does not stop at a critique of absolutism in the philosophy of mathematics: that is only the concern of the first chapter. The remaining 7 chapters are devoted to a reconceptualization of mathematics through a social form of fallibilism which regards human agreement as the ultimate arbiter of justified human knowledge. He proceeds to develop this by proposing a novel and well-argued interpretation of Wittgenstein's philosophy of mathematics, and thoroughly re-examining and re-evaluating Lakatos's philosophy of mathematics and the logic of mathematical discovery (LMD).

Paul Ernest then goes on to describe a social constructivist thesis of the genesis and warranting of mathematical knowledge through a generalized logic of mathematical discovery (GLMD) that follows a cyclic pattern like Lakatos's LMD, but is explicitly informed by the Hegelian dialectic that inspired Lakatos. He then goes on to uncover—along the lines of Rorty and Gadamer—the true dialogical and conversational nature of mathematics, behind its monological and objective appearance.

A book to be warmly recommended to all philosophers, especially those who are frustrated by their conversations with mathematicians, and to all mathematicians, especially those who can do more than play games with meaningless ink marks on pieces of paper.

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KARUNA BHATTACHARYA: *Madhusūdana Sarasvatī Advaita-Siddhiḥ (Sections on Mithyātva)*, text translated and explained by the author, ICPR Translation of Indian Philosophical Classics, Sibajīban Bhattācārya (Ed.), First Published 1992.

Indian thought has by no means remained static but has all along sought for new solutions of philosophical problems where the old ones were not altogether satisfying.

In Indian philosophical tradition, polemical literature which began with the polemics between Buddhist logicians and Nyāya logicians, gradually spread to Vedānta and other systems. The rise of *Nyāyāmṛta* by Vyāsatīrtha marks the most elevated stage of Dvaita-Advaita polemics. Vyāsatīrtha (1460–1539) has methodically arranged the available material on Advaita thought in his work *Nyāyāmṛta*. A careful study of the text *Nyāyāmṛta* would reveal to us that Vyāsatīrtha has made a fair presentation of the Advaita concepts by placing them as *prima-facie* views. This work—*Nyāyāmṛta* invited the presentation of Advaita concepts redressed or revised. A response to accomplish this difficult task came from Madhusūdana Sarasvatī (AD 1540–1647) who flourished in Bengal. Since *Nyāyāmṛta* quotes from early Advaita works and refutes them, Madhusūdana's task lies in clarifying those points to meet the objections raised.

The physical world is an illusion for the Advaitins. They contend that there are several Upaniṣadic texts in support of proving the illusoriness (*mithyātva*) of the world. *Mithyātva* is a vital concept in Advaita. It is the counterpart of the concept of Brahman. To show that the real is the non-dual Brahman, the Advaitins have proved that everything other than Brahman is an appearance. The doctrine of *mithyātva* which is thus unique to this system eludes not only critics of Advaita but even unwary followers. For this reason the Advaita preceptors devoted special attention to explaining and justifying this concept. The Dvaitins attribute a diametrically opposite feature of *mithyātva* to the world, namely, reality. Hence, they tried to tear this concept to shreds in their works. But the force of Advaita logic emerged from behind as it were in the person of Madhusūdana Sarasvatī, who stoutly defends this concept by offering the various definitions of *mithyātva* formulated by the post-Śaṅkara Advaitic preceptors, such as Padmapāda, Citsukha, Prakāśātman and Ānandabodha.

This book is a translation with explanatory notes of the section of definitions of *mithyātva* in *Advaitasiddhi*. The book consists of six chapters, the first five dealing with the five definitions of falsity (*mithyātva*) and the last chapter devoted to the justification of falsity in general. Each chapter is again divided into three parts wherein Part A provides the Sanskrit text, Part B the English translation and Part C the explanatory notes. Anybody familiar with the Sanskrit texts knows that they are dense, potent and ambiguous. In this text—Advaita Siddhih—the intricacies of the perfect logic of the *navya-nyāya* school find full expression in different interpretations formulated by Madhusūdana. Although it may be said that translating a text with success is a matter of linguistic competence yet the philosophical competence of the author is certainly reflected in the explanatory notes offered by her. The English rendering in all the places is quite faithful to the original. But providing English equivalents to certain logical terminologies sometimes makes the reading difficult. It is often thought that the habit of writing translation on cryptic texts would not be favourable to originality or the development of thought. But the author has taken special care to provide the Sanskrit terminology together with difficult technical terms rendered into English. This makes the study of the text quite easy for those who have a logical bent of mind.

In addition to the translation, the book under review contains an Introduction which tries to explain the first two definitions drawing parallels from Western logic and philosophy.

By writing this work, the author has made it possible for even those who are not fully conversant with the sastraic works in Sanskrit abounding in *navya-nyāya* language, to acquire a well-systematized knowledge of Advaita, and she deserves all praise for it.

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P.K. MOHAPATRA: *Social Justice: Philosophical Perspectives*, D.K. Printworld (P) Ltd., New Delhi, 1999, pp. 251, Rs 350.

Since the book under review is the outcome of a DSA (Department of Special Assistance) project sanctioned to the Department of Philosophy of

Utkal University, it raises high expectations.[1] It contains a plethora of essays written by fifteen distinguished philosophers, jurists, linguists, and legal experts. The thrust area called 'analytical philosophy of values', in the context of this book, strikes me as nothing more than a jargon. The term 'applied philosophy' is adequate to capture both the content and style of the book on social justice, which is what it represents. The book on the whole claims to give many philosophical perspectives on the Indian theory of justice. It succeeds quite well even if it presents at least one plausible form such a theory can take. But it is only to be regretted that its diachronic leanings on *Arthasasthra*, *Manusmrti*, do not provide as much staple-cheese as the miasma of karmic-oughtness (which enjoins 'do Karma X, for it is good') for a viable Indian theory of justice. A sad consequence is that the question 'Does the compatibilist ideal of Karma (understood in the progressive, as opposed to a regressive sense) *plus* Varna-vyavastha replace a seasoned liberal theory of justice *à la* Rawls?' remains as unanswered as ever (Panigrahi). The reason may be that all of them, except one or two, dogmatically reject the so-called western theories of justice in their zeal to flag an ultimate Indian solution. Avoiding xenophobia, they can build on the ruins only if they know how to split hairs with the much-vaunted theories of the west (e.g. Rawls' distributive theory of justice for a democratic society). As many as five philosophers criticize Rawls' original position. But their criticisms are limited to impressionistic salvos which either charge him as a Kantian or say that his 'mitigated Kantianism' (Shefali Moitra) is open to other forms of critiques (e.g. feminist). However, the following themes provide an apparent unity to the book, which lies in its recognition of certain understanding of human nature.

The first two and the twelfth essays take justice as equality (and *a fortiori* retributive) to spotlight on the controversy between egalitarianism and meritarianism in the reservation issue (Mohapatra, Rajendra Prasad, Rama Chandra Majhi). The third, with a streak of nostalgia, holds that since no theory will do good for a highly hierarchical society where needs are defined unevenly *ab initio* (66), the choice inevitably is narrowed down to a tribal form of democracy. Consequently, this provides an alibi for exploring the anthropological assumptions of Indian liberal democracy (D.P. Chattopadhyaya), while the fourth expounds mythical-sounding ontological basis of a monistic Indian theory of social justice (Chatrapati Singh). The fifth and sixth partially make a vain effort to dwell on the inadequacies of Rawl's liberal theory of justice (Pradhan, Bijoy), by way

of ensuring a return to its Kantian presuppositions, the seventh presents the high-sounding Karmic solution to the theory of justice (S.C. Panigrahi), the eighth examines the feminist-oriented critique of the liberal thoery of justice (Shefali Moitra), and the ninth articulates the relation of multilingualism to justice (Patnaik), without much success. In what sense does multilingualism get methodical priority over multicultural theory of justice is hardly clear at present.

The only explorative essay which comes closer to capturing a systematic Indian theory of justice (Monistic theory) is the fourth essay by Chatrapati, which after classifying all theories under two groups, namely the heteronomous and autonomous, loads his monistic theory with a mythical ontic unity of wills (105). It starts with the assumption that any theory of justice, if it is to be comprehensive enough to do the job, must answer the what, why and how of being just. On this redundant scale, all western theories stop short with the first question, and hence we have to turn eventually to Indian traditions to seek appropriate answers to all the above questions (85). On the heteronomous side lie the strongly reductive (positivistic theories, which include legal positivism), pseudo-reductive (theological theories), utilitarian or contractual (such deontological theories are merely *a priori* sociologies, and they are vitiated by teleology) theories and hence, all of them deserve to be dismissed as 'spurious'. On the other side lie the autonomous theories. An autonomous theory may be mystical (Dharmic) or neo-Kantian. The former has varied depths relying on mystical experience and the latter tends to be falteringly dualistic. Thus all western theories are either dogmatic or flawed. What we need is a monistic theory, which may be grounded on the equality or confluence of different wills. Thus there emerges a mysterious perspective for a monistic theory because none of the western theories has it and all heteronomous varieties are spurious on that count. Rawls is utopian and Marx is as bad as being religious. No doubt Hegel provides a model for monism, but only to be vitiated by his dialectics. So long as it tries to resolve the contradictions, does it not suppress the inherent teleology of wills? No essentialist theories please, if they posit noumenal self (this enters into tension with the Pradhan–Bijoy posit). Curt dismissals aside, one fails to understand how this would contribute towards a rich theorization of social justice, for a crisis-ridden, corrupt, theory-starved democracy.

The editorial introduction makes no attempt to bring together the rancorous elements except to endore Prasad's solution to the above reservation controversy, which is arrived at through circumscribed reasoning and presented as the philosopher's panacea for retribution after seriously considering the 'great Indian experiment'. Taking equality as the *prima facie* requirement of justice, Prasad argues for a liberal equalitarianism (in contradistinction to a literal one) which to some extent indirectly justifies the preferential treatment of a candidate of a lower caste. It is also along the lines of the differential principle enunciated by Rawls in his liberal theory of justice. After all, Indian society is caste oriented, and hence some differential principle must be allowed to operate. So, both of the above authors deem it necessary to grant that a theory of justice is *au fond* a theory of preferential treatment in the Indian context. On Prasad's understanding, this principle needs to be worked over almost to the point of excess. It is by no means true to say that they address themselves to any radical solution to the most crucial issue of caste, which requires it to be replaced by economic backwardness. In a non-radical way, they want the Indian society to carry the cross of caste, and hence they leave us with a chronic dilemma.

Applied to the educational sector, the authors want to justify by telling the 'wronged' candidate of the higher caste that he cannot be wronged for what his predecessor has done to the lower caste, but this is only to restore the societal balance. And for the candidate of the lower caste, they want to say that he cannot continue to enjoy the same privilege for such a long time since equality is the ideal in the long run. The crucial dilemma is stated as follows:

> If preferential treatment is given, then equality is sacrificed;
> If it is not given, then the social balance will be upset.

The nagging question remains: can they resolve it by holding both of the horns, if this is what is suggested by Rawls. So the preferential treatment is to be given, while at the same time we have to see that the social balance will not be upset. Prasad is inclined to add a premise: it should not be for the wrong reason, which leads him to sermonizing. The wrong reason is embedded in the revenge interpretation perpetuated by the powers-that-be. The right reason entails that there is no cause for resentment. This is how one should read the 'depth grammar' of equality. Thus the retribution is clutched on to by the semanitcs of a 'persuasion' theory.[2]

The ideal of proving the 'conceptual closeness' reverts to conceptual looseness of a sort. It seems too radical to say that the context of birth (and caste) has nothing to do with just-making in the context of education (5), too radical because it cannot be made in public. So, they crutch it with the differential principle (care for the disadvantaged) to make it in tune with a theory like the one Rawls has given. They assume that equality should be equality in the long run, which means that both parties are to be satisfied (pacified). The affected party must realize that it is in the interest of social balance, and the beneficiary must realize that he should improve his efforts so as to catch up with his counterpart. Prasad spends a large part of his reflections in driving home the point that the revenge interpretation of social reservation must be avoided, because it is amoral. Since equality in the long run is desirable, a well-designed educational system will go a great way in restoring the societal balance. If revenge interpretation is avoided, then it will provide a softening of the tempers of the higher caste candidate. He may even learn to adjust with his brethren. Prasad admits that such a solution is nothing short of Utopian, yet this is what a philosopher can suggest in the context. More exactly, the theory becomes a casualty. One wonders whether the differential principle must be made to work without the caste. How will Mohapatra and Prasad react to the suggestion that preferential treatment cannot be made applicable to certain crucial sectors like universities and the judiciary?[3] It is as if to show the impossibility of retribution, Maheswata Chaudhury, following Karl Popper and Richard Burgh, provides many counter-examples, to prove that Rawls' rationality principle will not work. His argument goes *via* rejecting retribution. The preferential treatment and the consequent retribution, understood in the conventional sense of punishing the guilty, must also be rejected according to this view. Chaudhury's rejection enters into an unresolved tension with the Prasad-Mohapatra stance because this goes directly against the way Prasad and Mohapatra accept retribution and accept preferential treatment, even while accepting Rawls. Chaudhury rejects all by citing counter-examples.

Chattopadhyaya finds reason to pack off Rawls with a punchline: it is pro-Kantian, it does not do justice to the sick, the disabled and the poor (79). This is perhaps the reason why he also favours a tribal model of democracy. Since both democracy and its tribal form are systematically rational (68), there is reason to think that this is where equality resolves itself without any undercurrent of theory. Hoopla, we have won. Have not

we proved with all our ancient *varunasrama,* that a tribal way of life is a full-blooded democratic way of life? We cannot escape the plurality of theories, which threaten us with the quagmire of relativism. On the other hand the hi-tech resolutions of economic equality lead to minimal statistics (fold up your Rawls, Nozick and Sen). They are least suitable to a hierarchical Varuna-oriented society like India. So, bite the bullet. Sorry, Chattopadhyaya has no praise for Varuna theory, but he rightly diagnoses this to be one of the sources for present-day ills. Should we compromise with Varuna theory holding that it is not caste-*ly strictu sensu*? Chattopadhyaya need not answer because he has already answered it. Given our *rta,* Karma etc., can we not extract the juice from the passive traditions? Where does it leave us? Is it because the so-called philosophers want to keep off? Or else, they don't criticize because they cannot tolerate criticism? Do they not practice social justice in their own intellectual career? This is exactly the rub. An escape clause is provided by holding that the notion of democracy as a way of life contains a hidden assumption, which is essentially anthropological (the rest is history and it is all *maya*). To claim that such an escape clause can save us from the clutter of relativism is hardly convincing. Such is the contour of his theory.

The younger philosophers fare no better. So, both Pradhan as well as Bijoy argue against the original position with the same wavelength. Both turn to Sandel's celebrated critique of Rawls from a communitarian point of view as pointing to a major source of understanding his original position. For Pradhan, it offers a peg to hang on because it helps him to identify an unresolved issue in the unencumbered self that cannot be assumed without the underlying presence of noumenal self (the *original* original). If we assume that it is an underlying Kantian presupposition of Rawls' theory and interpret the term unencumbered self here as meaning that self which is unencumbered by morally irrelevant social facts (122), then Pradhan gets what he wants, namely, the beginnings of Kantian *a priori* theory of justice (126). This adds nothing to Sandel, but only distorts. Little realizing that there is only a parity between unencumbered and noumenal self in Sandel, Pradhan proceeds to argue that since the unencumbered self will lack the necessary moral fibre without which no theory of justice can take off, it should justify a positing of a noumenal self. Can Pradhan sustain such a Kantian reading by simply forcing a distinction between the empirical and transcendental self? Such a reading fails in its fundaments since a positing of the noumenal self may not

require any theory of social justice at all (Sandel's purpose is communitarian). But Pradhan finds solace in Kantian constructivism of Rawls (Rawls, 1980). He never knows that this goes against Rawls' intention for two major reasons: one, Rawls means only analogy and not identity (517). Second, the communitarian critique meshes the original position with the Kantian noumenal self (despite the disclaimers of Rawls) for the specific purpose of undermining a monological model, which is not sufficient for a viable theory of justice, which requires an interactive model.[4] A communitarian model is envisaged to be a midway house between the Anglo-American (formal) procedural model of justice and the Continental substantival model of justice (Habermas).[5] It is old hat to tell us that the primacy of the individual can only be accepted as a moral datum (125). Pradhan fires a shot against Sandel's communitarianism: To collectivize morality is to empty it of all content (126). His claim that full autonomy is Kantian is again wrong: it is un-Kantian (520–21). It goes against what Rawls says: Full autonomy is a moral ideal and part of a more comprehensive ideal of a well-ordered society (533).

Sandel will probably agree that the original position faces exactly the same problems as Kant's noumenal self, and hence Rawls' is inadequate, but Pradhan holds that Rawls is correct for the same reason that his theory involves the assumption of a Kantian noumenal self. While Sandel argues that the original position disengages the self and as such it loses scope of universalizing moral tendencies, Pradhan wants us to understand we can do so. Pradhan advertizes that no theory of justice could ever be developed without the transcendental self, knowing that it will not do. Who has such a theory? Bijoy has at least reason to doubt the metaphysical lore *pace* Rawls, but then why should he fall back on the same Kantian gimmick? He theorizes that without such a pass, one can hardly understand the Gandhian *modus vivendi* between religion (the religious personhood) and politics. I do not think that he can justify it to Indians by telling us that we cannot forget that we are religious *persona.* Such a possibility is foreclosed by the separation of politics and religion. But it seems to be wrong to identify this with Rawls' veil of ignorance. Granting that Rawls' original position is to be embedded on such an essentialist conception of personhood, which is antecedently metaphysical (132, 136), to what extent will Bijoy succeed to fuse this with the discredited pair of politics and religion? This will not save him from falling into the pit of communalism.[6] Bijoy has already moved far from Rawls when he tells us that the original position implies an asocial individualism taking this to be unacknowl-

edged ontological hypothesis (135). He avers that self is absolutely and metaphysically prior (132). Like Pradhan, he also believes that there is an explicit Kantian attribution of absolute moral primacy to justice, but the passage he quotes on page 130 does not confirm this view. Both of these versions strike me as worse as the subsequent ontic view, which ironically pays no heed to the noumenal self.

What about the next dimension of the theory? Here, Panigrahi's compatibilist position (Theory of Karma is compatible with the theory of justice) is presented as the most 'cogent solution' to the theory of justice (147). What is at fault here is the hankering after universalist solutions, which is the real benchmark of many Indian theoreticians in every branch of philosophy. *Karmavada* entails *prayatna* effortism (self effort) and hence Varuna theory is saved. A *sudra* can become *brahmana* by good deeds and a *brahmana* can be reverted to *sudra* by his evil deeds (149). Does the author want us to believe that *karma* is an alibi to justice?

As for the next dimension of the theory, Shefali Moitra beats about the bush with three 'radical feminist' criticisms for questioning Rawls' original position as gender neutral. According to her the sex/gender divide plays an important role. But to say such difference ought to be recognized goes very much against the grain of fundaments of feminism. This is similar to the paradox the feminists bring up for/against postmodernists. A postmodernist feminist cannot endorse emancipation as her goal, for that will make her yet another postmodernist in disguise. Of course, the support she seeks from Carl Gilligan's seminal study of the 'different voice' seems to be inadequate in the light of the recent attack on the substitutionist version of justice-based morality (substitute female for male), which tries to replace it with an integrationist account. The question whether gender difference must find a place, and if so what form the theory would take, remains unanswered. Thus the ethics of care does not replace the ethics of justice but rather supplements it.[7] Shefali may not agree with Seyla. On this reading, the original position does not adequately individuate except in a definitional way which leads towards only incomplete reversibility and not towards complete reversibility. In other words the criticism amounts to the same as Habermas makes against Rawls saying that the notion of others does not take into consideration the otherness ('concreteness') of other. There is a modicum of consistency. Is Seyla correct? Shefali needs to address herself to this question.

The following essay by Panda offers a different cup of tea. His argument has an underlying Chomskyan mode. This is bolstered by the following plea. Since the two major paradigms of communism and capitalism have their own minus points, as authenticated by the fall of communism in the East Bloc and the impossibility of exporting of US style democracy to other underdeveloped countries, we should develop our own indigenous alternative. From this point of view, it is correct to hold that Rawls' theory is only an apology for a US democracy. Without telling us at what point it fails in a democracy like India, he has recourse to saying that the perennial cultural dimension should be addressed so as to evolve a new comprehensive alternative theory of justice. Does he suggest that we should fall back on our culture? This will culturally isolate us. The trapdoor of relativism will remain open. A judicious 'fusion' of the west without losing sight of the perennial quest about the cast factor and its accompanying view of human nature are the first two key dimensions for developing an analytical view of justice.

Notes and References

1. *Social Justice: Philosophical Perspectives* (Utkal Studies in Philosophy-5) Ed. by P.K. Mohapatra (D.K. Printworld Private Limited, New Delhi, 1999) (pagination in the brackets refer to this book).
2. Such a theory of contemporary ethics has been much evidenced in Professor Prasad's writings. This seems to be the most ingeniously developed theory in India.
3. The suggestion originally came from Sri C. Subramaniam (former Governor of Maharashtra) in his public lecture but was drowned by more recent local controversies like reservation in the Judiciary.
4. For a fair summary and critique of the communitarian position from a feminist angle, see Kanchana Mahadevan's *Justice, Community, and Selfhood* in this *Journal* (1997) pp. 1–16.
5. Kanthamani's *Justice as Fairness: Procedural or Substantival? Philosophical Quarterly* (1999) pp. 83–96, appear), cites reasons why we will fuse more of Habermas than of Rawls.
6. Bijoy must be aware that communalism of the Sangh Parivar is the *bête noire* of the current scene in Indian polity.
7. For a critical review of Seyla Benhabib's *Situating the Self: Gender, Community and Postmodernism in Contemporary Ethics* (Polity Press, 1992), see A. Kanthamani's *Postmodernism and Feminism Indian Philosophical Quarterly* (1999) pp. 415–23.

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M.P. PANDIT: *Sri Aurobindo*, Munshiram Manoharlal Publishers, New Delhi, pp. 118, Rs. 225.

Sri Aurobindo is a multidimensional personality—an orator and crusader, critic and commentator, writer and teacher, poet and philosopher, leader and God-worker, mystic and idealist, prophet and path-finder. The book under review opens with a brief narration of several important events that took place in his life—from his early education in England to his rising in India as the poet of *Savitri*.

After a stay of fourteen years in England Sri Aurobindo returned to India. The moment he touched Indian soil he began to have spiritual experiences. It looked as if he began to recover his soul by leaving England. With the help of a Maharashtrian Yogi, Vishnu Bhaskar Lele, he entered Nirvāṇa, a condition where his mind became 'a free Intelligence, a universal Mind'. Though he lived in his true Self, he did not renounce the world, as was the habit of many who possessed the knowledge of Ātman. For he did not find any conflict between knowledge and the works to be done here. He was deeply involved in political activities.

Sri Aurobindo's chief aim was to educate the mass of India and make them realize the importance of bringing the British rule in India to an end and living as free citizens. Enraged by his speeches and writings which proved a threat to their rule in India, the government clamped him and his associates in jail. This happened in 1908. When he was taken to prison and when he was subsequently at the lower court, God spoke to him and explained why he was imprisoned. God said: 'The case which is brought against you, leave it in my hand. It is not for you. It was not for the trial that I brought you here but for something else. The case itself is only a means for my work and nothing more.' In obedience to God's command he left the case in His hand. Eventually he was acquitted in 1909. When he came out of jail, he started two journals, one in English (*Karmayogin*) and another in Bengali (*Dharma*), with a view to carry on his work for the nation. God spoke to him again and asked him to go to Pondicherry. Accordingly, he arrived in Pondicherry in April 1910. This marked the beginning of an intense *sādhana* for the upliftment of humanity.

In Pondicherry many historic events took place. Mirra, whom Sri Aurobindo later called the Mother, met him and became a collaborator in his *sādhana*. She was responsible for two things—for starting a journal which Sri Aurobindo called *Ārya*, and for founding an *āshram* in the

name of Sri Aurobindo. The objective of *Ārya* was 'to restate the ancient and eternal truth of the Self ... so that the mental and physical life of man may express the spiritual life ... .' Right from the beginning the Āshram upheld the ideal of fulfilment and transformation of life, unlike the other Āshrams in India which insist on renunciation as the goal of human life. Naturally, no one in the Āshram wears the robe of a *sannyāsin*, the robe symbolizing perfect retreat from life and the world.

In *Ārya* almost all major works of Sri Aurobindo were serialized including *The Secret of the Veda*, *Isha*, *Kena*, *Essays on the Gita*, *The Synthesis of Yoga*, *The Future Poetry* and *The Life Divine*. The journal ceased publication in the year 1921. Apart from these, there is another important work of Sri Aurobindo—*Sāvitri*. It is an epic written on a legend taken from the *Mahābhārata*. Originally the legend deals with a heroic woman Sāvitri who saves her husband Satyavān from the God of Death who took away his life. Sri Aurobindo has turned the legend into a symbol through which he teaches that in future, Man will be free of death.

The next two chapters are devoted to Sri Aurobindo's philosophy and *yoga*. The aim of his philosophy is to unfold the spiritual significance of the earth where we live, move and have our being. The earth is the field of evolution, evolution of the supreme Being. Through a gradual evolution of more and more developed forms, man has appeared on earth. But man is not the end of evolution. For in him it is still at work and seeks to transcend him. When it moves forward and transcends him, a new race of supermen appears on earth. In them the supreme Being comes out of its veil and manifests itself with all its immortal powers and glories. This is the beginning of the kingdom of God upon earth and the end of the rule of the beginningless ignorance and falsehood. As a result, the earth will be a place of divine life and enjoyment in a divine body.

Sri Aurobindo does not stop with giving a philosophical account but goes beyond it and gives us also the right means of realizing the potentialities of this earthly life. To him *yoga* is the right means, but not a *yoga* which serves as a means of escape from life and the world or which focuses on a particular power of the soul and excludes the rest to the detriment of its full growth. His *yoga* is a means of conscious cooperation with the evolutionary process of the world and hastening it in the right measure. So it uses all the powers of the soul—knowledge, work and devotion—and, through their integral development, arrives at the goal of

self-fulfilment in the world. It is for this reason that his *yoga* is termed the Integral Yoga.

The concluding chapter discusses the social philosophy of Sri Aurobindo. Through an insightful study of the social development of man, Sri Aurobindo shows that with the appearance of nations in the world and of the group-soul in each of them the right conditions for the manifestation of the eternal Spirit in collective life have been laid.

Sri Aurobindo is the greatest of souls who have contributed to the development of modern India. Modern Indian philosophy has benefited immensely from his treatises on metaphysics, Veda and Vedānta. A signal service has been rendered by including a volume on Sri Aurobindo in the series on 'Builders of Indian Philosophy'. The volume will be of great help to those who are not yet introduced to the original writings of Sri Aurobindo.

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MADHURI SANTANAM SONDHI: *Modernity, Morality and the Mahatma*, Haranand Publications Pvt. Ltd., New Delhi, pp. 244, Rs. 395 1997.

The aim of the book is to focus on the problem of modernity, which centres on individualism of the West and then to suggest *Hind Swaraj* as an alternative point of departure. Its aim is not to arrive at what Gandhi would have said were he alive today, but to creatively capture and apply the spirit of his endeavour in the prevailing situation. Independent India did not pay much attention to Gandhi and suspended, like Trishanku, midway between heaven and earth, he has been debarred from the role model since he is considered as a supernatural human being. This book aims at suggesting an alternative to solve the problems arising out of negativities of modernity.

The book consists of four chapters. The first two chapters are long enough to focus on the main issue. The first chapter on 'The problematic of Modernity' deals with the problem arising out of the individualism as a consequence of modernity and places the problem in the historical, cultural, sociological and political perspective in the West as well as in the East. 'Modernity has spread beyond its geographical and civilizational

area of origin, primarily because of its military and economic domains. But modernity both solves and creates problems, producing at times unforeseen consequences. The muddy cultural waters that follow in the wake of the modernizing ship often dismay Third World modernists. Scientific, technological and economic progress does not come without some cultural baggage, the latter not as welcome as the former ... Asians are beginning to question how much of the entire package, bright or dark, is suitable for absorption, and how much of it can be resisted.' The seeds of modernity were sown for the first time in India through foreign imposition. The affirmation of individuality has gone so far that a comprehensive understanding of the phenomena is missing. Reason has undermined moral coherence, and ethical ambiguity is an intrinsic feature of the scientific method. Religion that gives sanctions to morality is reduced to relativization of norms. Different projects of modernity are caught in a series of self-contradictions. Gradually, in the twentieth century a polarization developed between transplanted modernity and defensive tradition. Most Indians started subscribing blindly to the political and industrial hardware of modernity, and struggled with an understanding schizophrenically split between Indian philosophic ideals and Western anthropocentrism. Gandhi was one of the very few who formulated a critique of modernity, although it was not academic.

The second chapter 'The Gandhian Point of Departure' discusses in detail the contributions made by Gandhi towards the problems raised in the first chapter by emphasizing on ethical universality and that he wanted to align both means and ends. Removing Indian poverty was one of the central concerns of national movements but Gandhi did not allow to overtake economic problems to overshadow its dharmic or normative framework. He blurred the lines between knowledge and behaviour not by force but by 'a total change of being which is brought about by a long deep process of unselfing' through Truth and Nonviolence. The third chapter 'Aurobindo and Mallik on Modernity' briefly sketches the views of Sri Aurobindo and Basanta Kumar Mallik who were contemporaries of Gandhi and shared rejection of modernity as the only valid and universal prescription and they also shared nationalism with the view that India could be a spiritual teacher of humankind. Aurobindo tried to absorb modernity in his evolutionary theory whereas Mallik did not condemn modernity but placed it in a map of multiple or 'plural views of reality', knowledge systems and values. Aurobindo's vision was spiritual and cultural whereas Gandhi was

moral and socio-political. Mallik accepts Gandhian ethical position but the ways of aiming at a social peace are different. The author very carefully works out the differences and the similarities between these three thinkers. All the three were the representatives of their age dealing with the problem of modernity though social morality was the main concern of Gandhi but not of the other two. Aurobindo was more concerned about the spiritual future of humankind and Mallik's concern was how to understand the conflict and the ways to avoid it. But it is the author's main contention that 'today it is only Gandhi to whom one can turn as a starting point for a discussion on ethicality.'

Chapter four is devoted to 'Ethical Dynamism and the Future Society'. Here the author forcefully argues for the possibility to devise a means of bypassing the negativities of modernism. The contention is that 'Hind Swaraj still provides a point of departure' as it emphasizes on the primary human requirements of the responsible society and it enables us to take stock of the present and to construct an appropriate future, on the assumption that socio-political change is an ever-present possibility.

How to translate *Hind Swaraj* into practice? Answering this question Sondhi describes the role of NGOs who can help in bringing out a transformation. It is suggested that Gandhi's 'bread labour' could be transmuted into a compulsory national service, which would be a kind of constructive social work. Panchayats may be provided the status of autonomous republics, consumption could be controlled, economics with ethics, privatization for regaining the mutual trust and making space for a new kind of confidence and dynamic education system inducting morality and responsibility etc. could be some of the steps to start with. The author also points out some problems in Gandhism which are left unsolved. For example, the communal problem and the problem of the corrupting nature of power. As a matter of fact, it would have been beneficial for the reader if Sondhi would have drawn on the ideas of Tagore too, in so far as they relate very meaningfully to the issues discussed.

Today Indians stand at the intersection of, if I may say, of four of the most important debates facing the world at the beginning of the new millennium: the bread-versus-freedom debate, the centralization-versus-federalism debate, the pluralism-versus-fundamentalism debate and the globalization-versus-self-reliance debate. In this context Gandhi's vision of India was very clear. Gandhi recognized the pluralistic character of India but like all great thinkers he managed to distill all the qualities of

them and yet transcend their contradictions. But the point is that the principles he stood for—*Satya, Ahinsa* and *Non-violence*—and the way in which he asserted them are easier to admire than to follow.

His truth emerged from his convictions; it meant not only what was accurate, but also what was just and therefore right. Truth cannot be obtained by 'untruthful' or unjust means, which included inflicting violence upon one's opponent. Non-violence was the way to vindicate the truth by the infliction of suffering not on the opponent, but on oneself. It was essential to accept punishment willingly in order to demonstrate the strength of one's convictions. The power of non-violence rests in being able to say, 'to show you that you are wrong, I punish myself.' But that has little effect on those who are not interested in whether they are wrong and are already seeking to punish you as you disagree with them. For them your willingness to undergo punishment is the most convenient means of victory. On this subject Gandhi sounds frighteningly unrealistic. For many injustices across the world and in India it sounds like a prescription for sainthood. Mute suffering is all very well as a moral principle, but it has rarely brought about meaningful change. The sad truth is that the staying power of organized violence is almost always greater than that of non-violence. And when right and wrong are not so clear, Gandhism cannot manage. Gandhi at the peak of his influence could not prevent partition, even though he considered it wrong. Gandhi believed in 'weaning an opponent from error by patience, sympathy and self suffering' but if the opponent believes equally in the justice of his cause, he is hardly going to accept that he is in 'error'. Gandhism is viable at its simplest and most profound in the service of a transcendent principle like independence from foreign rule. But in most complex situations like of today's India it cannot—and does not—work as well.

The idea of self-reliant families in contented village republics, is even more remote today than when Gandhi first espoused it. Despite the brief popularity of 'small is beautiful', there does not appear to be much room for such ideas in an interdependent world. Self-reliance could be a cover for protectionism and a shelter for inefficiency in the Third World. To become a developed country one has to have the benefits of technological developments, which will broaden the horizons of their lives. Gandhi himself was not totally opposed to the technological developments. This only shows that Gandhism has its limitations which have been exposed over the years after 1947 but this is not to deny least the greatness of his

vision and thought. In fact, India after independence can be regarded as post-Gandhian India. It paid lip service too much to its Gandhian patrimony while striking out in directions of which Gandhi could not have approved. But its central challenges remained the ones Gandhi identified; of developing the capacity to meet the nations basic needs, of promoting among Indians the integrity and commitment he leveled 'Truth'. To me the main reason for the failures seems that the people very often give different interpretations to his basic principles and on the way the purity of the vision is lost and thus may not lead to the desired results.

The author argues that Gandhi's model was optimistically grounded in man's moral nature. But morality and conscience have a propensity to become subversive to authority, political, social or religious. The lawlessness present in the Indian set-up, bandhs, satyagrahas, dharnas, student indiscipline, all can trace their origin to forms of Gandhian protest. The society and government of modern India is by no means organized according to the principles of Hind Swaraj, within which it should have been possible to conduct a moral dialogue. The author further argues that these protest movements can hardly pass the tests of responsible citizen's action as conceived by Mahatma. Gandhism rests on the assumption that the man by nature is moral and left to himself will always know what is good and that good once perceived cannot be wrong if it is perceived by collective wisdom. This is precisely what leads to the problems in the present context. If collectively people decide to be corrupt or terrorist then should we accept that corruption or terrorism is right? The village society, which was to guarantee human dignity for all and retain its group solidarity, is the very foundation which guarantees collective degeneration of morality and to achieve the so-called 'good' for all. In fact the author herself accepts 'the success or failure of Gandhi's experiment would depend on the moral quality of the individual leads, on a consensus for social and communal life and on a high level of wisdom which is the basis of judgement.' And in the drastically changed scenario the decline in moral values and corruption being the foundation, is there any room left for applicability of this theory?

On the whole, inspite of its unimpressive look the book is quite interesting and compels the reader to think seriously about the issues. The third chapter on Aurobindo and Mallik plays a very insignificant role in achieving the main objective of the book. The commendable part of the book is its first and second chapters. It succeeds in presenting the clear

picture of the problem of modernity. The second chapter covers immense issues ranging from Indian cultural history to the critical presentation of the present Indian socio-political, economic situation. Its treatment of the issues and the main contention rightly emphasized the need for Gandhism. The author discusses almost all the important questions, except legal, following some sound hypotheses. Her account shows an interesting awareness and sensitivity to most of the writings and debates, which makes it, despite its virtues, a bit repetitive.

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GEETA RAMANA: *Intentionality of Language and Thought*

MANIDIPA SEN: De Re *Thoughts: Issues in the Relation Between Thought and Reality*

RICARDO F. CRESPO: *A Middle Ground Epistemological Position: Economics as a Classical Practical Science*

A. KANTHAMANI: *What Exactly is Wrong with 'What is Wrong with Post-Modernism?'*

VLADIMIR SHOKHIN: *What are Sixteen Padārthas of Nyāya? An Attempt to Solve the Dilemma of Long Standing*

M. PRABHAKARA RAO: *Brahman-World Illusion in Advaita Vedānta: A Critique*

KANCHANA NATARAJAN: *Primordial Waters: Some Remarks on Ṛgvedic* Creation Hymns

S.M. BHAVE: *The Anumāna Reconsidered*

DAYA KRISHNA: *Possible Worlds*

Forthcoming

Shri N.P. Jain of Motilal Banarsidass, Booksellers and Publishers, Delhi has brought to our notice that the Sanskrit text printed on page 135 under the section 'Notes and Queries' of the *JICPR* Vol. XVII No. 1 has been wrongly printed.
The correct version as sent by Prof. N.S. Dravid is printed below:

"अभेदान्वयबोधश्च विरुपोपस्थितयोरेवेति व्युत्पत्तिः घटो घटः, दण्डवान् दण्डवान्, पाकं पचतीत्यादी घटत्वदण्डवत्वपाकत्वाद्यवच्छिन्ने तत्त्द्रूपावच्छिन्नस्य तथाविधान्वयबोधानुदयात्। अथ तत्प्रयोजकसमानविभक्तिकत्वादेः सत्वात्कथं न तादृशान्वयबोधः। अत्राहुः.....घटत्वाद्यवच्छिन्नविशेष्यताकाभेद. संसर्गकघटत्वाद्यवच्छिन्नप्राकारकशाब्दबोधस्य क्वचिदप्यनुदयात्।''

We regret the incorrect printing of the Sanskrit text and are thankful to Shri N.P. Jain for bringing it to our notice.

Prof. Gopal Sharan, Formerly Head, Department of Psychology, Lucknow University, Lucknow, has brought to our notice that under the section 'Agenda for Research' in the *JICPR* Volume XVII No. 1, page 183, line 5, the name of Hume's book has been wrongly given as *A Treatise on Human Nature.* The correct name of the book is *A Treatise of Human Nature.*

We are sorry for the inadvertent mistake that has crept in the title of the book and are thankful to Prof. Gopal Sharan for bringing it to our notice.

Books Received

1. *The Hellenic Philosophy: Between Europe, Asia and Africa.* Christos C. Evangeliou.
2. *Christ the Yogi—A Hindu Reflection The Gospel of John.* Ravi Ravindra.
3. *Fundamentals of Logic.* Arindama Singh & Chinmoy Goswami.
4. *Literary Theory.* Kapil Kapoor.
5. *Sikhism: Philosophy and Culture.* Wazir Singh.
6. *The Cosmotheandric Experience: Emerging Religious Consciousness.* Ramon Panikkar.
7. *Classical Indian Ethical Thought.* Kedar Nath Tiwari.
8. *Buddhist Theory of Meaning and Literary Analysis.* Rajnish Kumar Mishra.
9. *The Clock of the Night Sky.* V. Krishnamurthy.
10. *Samyuktabhidharmahrdaya.* Bart Dessein.
11. *Samyuktabhidharmahrdaya* (Part II). Bart Dessein.
12. *Samyuktabhidharmahrdaya* (Part III). Bart Dessein.
13. *Methodological Studies in the History of Religions.* N.S.S. Raman.
14. *Education for Human Rights and Democracy.* K.J.S. Chatrath.
15. *Varṇadharma, Niṣkama Karma and Practical Morality.* Rajendra Prasad.
16. *Social Constructivism as a Philosophy of Mathematics.* Paul Ernest.

The regional languages of India are rich not only in literature but also in philosophical thinking. There are systems of philosophy which have originated in different parts of the country such as Śaiva-Siddhānta in Tamil Nadu, Vīra Śaīvism in Karnataka, Vaiṣṇavism in Orissa, Assam and Bengal, Mahimā Dharma in Orissa, and Devātmá movement in Punjab which have given rise to original works written in the languages of these regions.

The *JICPR* proposes to bring out a Special Issue on the Philosophical Traditions in the regional languages of India under the editorship of Professor R.C. Pradhan.

Contributions for the Special Issue should reach Professor R.C. Pradhan by 30th September, 2001 at the following address:

PROFESSOR R.C. PRADHAN
Member-Secretary
Indian Council of Philosophical Research
36, Tughlakabad Institutional Area
M.B. Road (near Batra Hospital)
New Delhi 110 062

For any further information, please write to Professor Pradhan at the above address.

Diacritical Marks

Vowels

आ ā
ई ī
ऊ ū
ए,अे ē } (long)
ओ ō } (N.B. long ē and ō are for the particular syllables in Dravidic languages.)
ऋ ṛ and not ṛi; (long ॠ, which rarely figures, may be rendered as ṝ)

Nasals

Anusvāra

(ं) ṁ and not ṃ

anunāsikas

ङ् ṅ
ञ् ñ
ण् ṇ (or ṇa as the case may be)

Hard aspirate

Visarga

(ः) ḥ

Consonants

Palatals

च ca and not cha
छ cha and not chha

Linguals

ट ṭa
ठ ṭha
ड ḍa
ढ ḍha and not ḷha

Sibilants

श śa
ष ṣa
स sa

Unclassified

ळ ḷa
क्ष kṣa and not ksha
ज्ञ jña and not djña
ऌ ḷṛ and not ḷṛi

General Examples

kṣamā and not *kshamā*, *jñāna* and not *djñāna*, *Kṛṣṇa* and not *Krishṇa*, *sucāru chatra* and not *suchāru chhatra* etc. etc., *gaḍha* and not *gaḷha* or *garha*, (except in Hindi)

Dravidic (conjuncts and *specific) characters*

ൽ ḷ
ഴ ḷ.
ൻ ṇ
ർ ṛ.

Examples

Iḷaṅ-Gautaman, Cōḷa (and not Choḷa), Munnuṛṛuvamaṅgalam, Māraṇ etc.

Miscellaneous

Where the second vowel in juxtaposition is clearly pronounced:
e.g. *jāṇaï* and not jāṇai
Seŭṇa and not Seuṇa

Also, for English words showing similar or parallel situations:
e.g. Preëminence and not preeminence or pre-eminence
coöperation and not cooperation or co-operation

For the Simhalese, excepting where the words are in Sanskrit, the con-ventions of rendering Simhalese in Roman are to be followed:
e.g. *dägaba* and not *dagaba*
veve or *véve* and not *vev*

Quotations from old Indian sources involving long passages, complete verses etc., should be rendered in Nāgarī script.
(The western writers, however, may render these in Roman script if they wish; these will be re-rendered in Nāgarī if necessary, by the editors.) Sanskrit quotations rendered in Roman are to be transliterated with *sandhi-viccheda* (disjoining), following the conventions of the *Epigraphia Indica*, but the signs for
laghu-guru of the syllables in a meter (when the citation is in verse) are not to be used.

Place Names

These are to be diacriticised, excepting the anglicised modern:
Examples: Mathurā, Kauśāmbī, Valabhī, Kāñcī, Uraiyūr, Tiḷevalli etc., but Allahabad (not Allāhābād), Calcutta (not Calcaṭṭā), Madras (and not Madrāsa).

Annotations

There will not be footnotes; but annotations (or notes and references), serially arranged, will appear *en masse* at the end of the text in each article.

References to published works

Those pertaining to articles, books etc., appearing in the main body of the text, or annotations, or otherwise:
Title of Book, Author's name (beginning with his initials) title, edition (if any) used, the name of the series (if it appears within it): next the place of publication along with year of publication, but without a comma in between; finally the page (or pages) from where the citation is taken or to which a reference is made.