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Formal Aspects of Causality

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I

B. K. Matilal makes a number of comparative judgments on causality in his article. His aim is to show that (a) concern for the notion of causation was taken more seriously in some Indian philosophical schools than it had been in some of their Western counterparts, and (b) that the meaning of 'cause' is much wider in Indian philosophy than it is in the West. Matilal's comparative remarks are stimulating and suggestive. He discriminates different types of causality and presents a perceptive inventory of key concepts of causality in the Indian philosophical tradition. As I reflect on these remarks I find myself gravitating to certain general methodological issues. What assumptions, for example, underlie his comparative judgments? How do we know that the conception of causality in one philosophical school (or tradition) is the same as or different from that of another? Must we not make explicit the criteria of identification of a given conception of causality? Are we entitled to make comparative judgments unless we presuppose some neutral and univocal conception of causality which transcends any particular philosophical school? If we do not, then are we not merely guessing at rather than making comparisons? If, for example, the conception of causality in Hume's philosophy is totally different from the Kantian conception (that is, if they are equivocal concepts) then the two are incommensurable. In that case there would be no basis for comparisons between the two. On the other hand, insofar as we can make comparative judgments between philosophical schools (traditions) it seems necessary to presuppose a univocal (neutral) concept of causality. In short, if two concepts of causality are equivocal, they are incommensurable; conversely, if two concepts of causality are comparable, then this entails that they share univocal features.

Of course these issues pertain not only to Matilal's remarks but also to the very project with which we are engaged in this workshop. Indeed, they pose problems for the very possibility of comparative philosophy. I am assuming that our enterprise is possible. And I wish to suggest here that the possibility of making comparative judgments on causality presupposes a univocal and formal concept of causality. In that case it becomes urgent to face this issue and to begin to excavate the formal (univocal) concept of causality. I believe that unless methodological priority is given to this issue, we have no way of knowing whether we are groping after comparisons rather than making them. Thus, in these brief remarks I shall attempt to state the issue(s) as clearly as I can and merely suggest a way to proceed to deal with it. I suggest that there is a neutral (formal, generic) and univocal concept of causality and that it is possible to explicate it. I make a distinction between material and formal

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features of causality. I claim that a particular (material) conception of causality is a function of a given material ontology. This means that the important consideration in making comparative philosophical judgments about causality is comparison across ontologies, not across different philosophical schools or traditions. I attempt to specify what may be considered formal features of causality and I suggest that any particular conception of causality would exhibit these formal features.

## II

Before facing the general problem I shall raise specific difficulties in connection with some of Matilal's comparative remarks. The point is to illustrate how particular comparative judgments are problematic unless conditions for making them are made explicit.

Matilal claims that the notion of causation "was taken more seriously in some Indian philosophical schools than it had been in some of their Western counterparts." In saying this he must be presupposing some neutral conception of causality but he gives no indication of criteria for identification of such a concept. Furthermore, he assumes that certain Indian philosophical schools have Western counterparts, but again no criteria are specified whereby we may identify two schools within a tradition or between traditions as being counterparts. Is Hume's philosophy a counterpart to the Abhidharmic school? What entitles us to make comparisons here?

On the one hand, Matilal claims that "the meaning of 'cause' is much wider in Indian philosophy than it is in the West." However, it is not made clear what "wider" means. In one sense it may be a virtue but in another a limitation. If, for example, "wider" is taken to mean "more indeterminate" then it may well be a limitation to have conceptual width. I suppose he means that the meaning of 'cause' is wider in the sense of being more general or formal. But, again, criteria are not specified.

On the other hand, Matilal claims that "Aristotle's notion of the 'efficient' cause, on a liberal interpretation, can match this Vaiśeṣika notion. But nothing like Aristotle's notion of the 'final' cause or the 'formal' cause can be found in the Indian schools." This suggests, contrary to the claim just examined, that the Aristotelian treatment of causality is "wider." In any case I am puzzled by Matilal's claim. The notion of a formal cause is not Aristotle's conception, although he did make it explicit and so named it. If I understand Aristotle's explication of formal cause, then any ontology which recognizes the notion of substance or essential nature would thereby, at least implicitly, recognize formal cause. For the formal cause is that which determines the essence (what-it-is) of a given thing, that which constitutes the thing. This would mean that any Indian philosophical school which discerned the notions of individual entity, substance, potentiality, essential nature, etc., would naturally involve some version of formal cause. A similar case may be made for 'final' cause.

## III

Returning to the general problem, it would be helpful to attempt to state the factors which determine or shape a particular conception of causality. How many different conceptions of causality are there? What are relevant considerations in distinguishing types of causality? Is there a fixed number of types of causes, such as suggested by the Aristotelian fourfold classification? If so, what are the principles of classification? What differences make a difference? It is readily acknowledged that causality is different in the Advaita, Sāṃkhya, and Abhidharmic schools, or that the Humian, Kantian, and Aristotelian conceptions of causality differ significantly. The differences are systematic, but it is not clear which factors of a philosophical system determine its own version(s) of causality. Why do we single out Hume's analysis for comparison with the Abhidharmic analysis of causality? Is the conception of causality determined by the ontology, or by epistemological assumptions, etc.?

One natural suggestion is that causality varies according to the ontological type of the constituent relata; that is, the causal relation (as a dyadic relation) involves two objects, one cause and one effect. The objects related may be of different types, but a causal relation may only be possible between certain types of entities. Here are some possible combinations: object and object (substances), event and object, idea and object of idea, quality and object (attribute-substance), process-object, conscious state and physical state (mind-body), etc. Thus, one would naturally expect the causal relation to be different if in one case the relata are substance (individual entity) and event, and in the other the relata are quality (attribute) and substance. But is this so? Is the causal relation itself different in the two cases? It is not clear that the ontological type of the relata determines the causal relation. It is conceivable that the causal relation is the same whether the relata are instances of any of the combinations listed above. However, when we consider another level of type difference, for example, between mind and body, we find that the causal relation itself may be eclipsed. For the mind-body problem precisely involves the attempt to make sense of causal (and other) relations between mental and physical entities. Here is a difference that seems to make a difference.

## IV

It will be helpful at this point to make a distinction between the formal and material aspects of the causal relation. This relation is traditionally associated with a wide range of characteristics; for example, the power (force) to produce some change, motion or action. A cause is characterized often as that which influences, conditions, determines, necessitates, affects, effects, etc. From an ontic point of view it is that which affects the being of a given thing (event, process, etc.), and from an epistemic point of view it is that which orders and explains, that is, supplies a reason for the being of a given thing (action, trans-

formation, etc.). Furthermore, the relation may be said to be dyadic, asymmetric (involving an order or direction of antecedent-consequence); it may involve connection or juxtaposition, and so on. If we are to excavate a neutral and generic concept of cause it seems desirable to distinguish those properties of cause which are material and those which are formal. Intuitively it seems that the properties of power, force, agency, production, etc., are material properties, while features like being dyadic, asymmetric or symmetric, etc. may be construed as formal. The causal relation, like any relation, exhibits formal properties of relations. The challenge is to attempt to explicate formal features of causality without this concept losing its identity as a special type of relation.

A terminological distinction may be appropriate here. Let us call the formal conception of causality the category of causality, and a particular conception (material) will be called a concept of cause. We shall speak of formal characteristics of the category as features, and material characteristics as properties. Thus, the question becomes whether there is a generic (neutral) category of causality which any specific concept of causality presupposes or exhibits. The category of causality, being formal, would be neutral with respect to any particular ontology or philosophical system.

What, then, are the formal features of the category of cause? Presumably such features would be independent of any material ontology. What is the most generic feature of the causal relation, one which would be common, for example, to both the Humean and Kantian conceptions? Hume focuses on constant conjunction while Kant works with necessary connection. In one sense the notion of conjunction is a weaker (hence more inclusive) relation than that of connection. In terms of logical relations it may be said that the paradigm for Hume by the propositional form 'p and q', while the paradigm for Kant is the conditional relation (represented by the form 'if p then q'). The latter is a conditional relation and it seems to presuppose conjunction. However, mere conjunction does not entail conditionality. It is in this sense that the relation of conjunction is "wider" than the conditional relation, which is a stronger connection.

In explicating the category of causality the following considerations would seem to be relevant:

- a) If the causal relation is formally dyadic, must the relata be distinct individual entities (of whatever ontological type)?
- b) Is the relation formally, symmetric or asymmetric? Is conceptual ordering essential to the relation, for example, an ordering such as antecedence-consequence?
- c) Does the category of causality presuppose the category of time? If so, is temporal order a feature of causality?

v

Supposing that we are able to discriminate formal features of the category of causality, it must still be determined what considerations shape a particular conception of causality. Why, for example, does the Humean conception of causality differ in the way it does from the Aristotelian conception? The Humean conception centers on a psychological association (juxtaposition, constant conjunction) of ideas, while the Aristotelian conception involves an ontological connection between cause and effect. Nevertheless, both conceptions share common formal features. I wish to suggest that it is the ontology of a given philosophical system which primarily shapes (determines) its conception(s) of causality. I shall illustrate with Hume and Aristotle, although a similar comparison may be made for causality in *ātman* and *anātman* ontologies.

Hume's ontology is a good example of one which rejects the notion of substance, while Aristotle's ontology takes the concept of substance as primitive. For Hume, phenomena are real while individual objects or events are constructions. Each phenomenon (for example, a color patch, a sound, a taste, etc.) exists independently. Since substance or substratum is rejected, there is no possibility (in this ontology) for phenomena that stand in connection. Phenomena are thus juxtaposed or stand in conjunction, not in connection. Thus, an ontology of independently existing phenomena which rejects substance requires that the causal relation be conjunction. This means that the causal notion is essentially serial or sequential with no continuum. In drawing out this consequence Hume was a discerning ontologist.

On the other hand, a substance-attribute ontology such as Aristotle's provides an ontological basis for causal connection. For example, the primitive substance-attribute relation involves an ontic dependence relation of attribute on substance; attributes cannot be apart from substance. It is this ontological relation which unifies Aristotle's fourfold causal analysis. A substance ontology which involves the notion of continuity (existing through time) provides for causal connection between relata (of whatever type they may be).

If this is correct, then one would expect to find different conceptions of causality in different ontologies. For example, the conception of causality would be different in a materialist, idealist, dualist or monist ontology. Conversely, if two ontologies are the same (under appropriate criteria) then the conceptions of causality should be consonant. Thus, if the Humean and Abhidharmic ontologies are identified as formally the same, then this would warrant comparisons between their respective conceptions of causality. And the formal category of causality would reflect formal ontological principles, that is, principles which would apply to any material ontology.

vi

Of course this has been quite sketchy. I have attempted here merely to state the issue(s) and make a suggestion. I am sympathetic with Larson's movement toward structuralism. However, I have been suggesting that the key to a formal analysis of causality is structural ontology. The suggestions I have made needless to say, involve presuppositions which are open to question. Clearly there are alternative ways to deal with the issues. What I remain convinced of, however, is that the issues raised here require attention if we are to make significant comparative philosophical judgments.