

CHAPTER III

CONCEPTION OF CAUSALITY : ITS METAPHYSICAL IMPLICATION

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Causal relations, like spatial and temporal ones, seem to be present among all objects of experience. With regard to any particular object of the world, it may be said that it is related to other objects as both a cause and an effect. On the one hand it arises out of certain conditions and is related to them as their effect. We cannot think of any physical object which has not the cause-effect relation to other objects. Everything in this universe must have a cause and everything must be the cause of certain effects. Again, the totality of all objects of the physical world is regarded as one endless chain of causes and effects. Any activity or change in anything of the world has its effects on all other things. Thus the world is regarded as one system of many inter-related objects. Again the whole world is also regarded as evolved by some ultimate cause, which though not caused, is related to the world as cause to effect. The relation of cause and effect seems to be constituting of things or objects of experience. Whatever exists must be in some time and place and be related to other things by way of cause and effect.

We should refer here to Russell's attempt to explain causality in the light of recent scientific knowledge concerning both space-time and events. Russell says that "we may define causality in its broadest sense as embracing all which connect events at different times, or, to adopt our phraseology to modern needs, events the intervals between which our time — like."<sup>1</sup> There is however no scientific justification for dividing the happenings

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1. The Analysis of Matter - Russell, Pg. 313.

of the world into detached events.

Although reference has been already discussed at different places in this work, a separate treatment of the concept of causality may be considered as necessary as its implication in metaphysics.

Every metaphysical theory is associated with an appropriate theory of causation. That being so the various metaphysical theories are likely to appear in a clearer perspective in the light thrown upon them by the theories of causation.

The principle of causation may be provisionally expressed by stating that nothing happens accidentally and that all happenings or events are individually due to something which is called their cause. The causal principle thus would, of course, present itself to be a common place to any adult member of a somewhat civilized society of to-day. But the human race must have had to wait for centuries before it became mature enough to envisage this principle. Its earliest attitude towards happenings or events coming within the field of its experience, perhaps manifested itself in the belief, that all events are accidental, which is known as Yadrochā-vāda. Cārvākas threw the causal principle overboard and had recourse to the doctrine of accidental happenings (Yadrocha-vada). Of course, their admission of this doctrine was not a matter of naive belief, but was the outcome of their dismissal of the causal principle on the ground that the relation of invariable concomitance between the cause and the effect, which is essential to this principle, is not warrented by

experience and so is inadmissible.

But the inadmissibility of relation of concomitance between the cause and effect, as seems to have been realised by a later generation of the Cārvākas, need not necessarily lead to the doctrine of accidental happenings, but may well call for another and perhaps a better alternative under the title of svabhāvavāda (naturalism). This doctrine like the former one, does not recognize the notion of cause, but regards the so-called effect as self-existent. The attitude towards the phenomena of nature expressible in both these doctrines could not be maintained for all time to come. The orderliness of natural phenomena as exhibited in the inexorable regularity / of sunrise and sunset, the changes of seasons etc. impress itself upon the Indian mind as it did upon the mind of the ancient Greeks. And already in the Vedic period the concept of rta, literally standing for the "course" (of things), but taken to signify immutable and inviolable order, was made use of in the understanding of all events in the domain of nature, and, what is more, as regarded as applicable to moral and religious fields as well.

Now what is required to be done for bringing out the implications of the causal relation is primarily to determine the metaphysical relation between the two on the other hand. As far as the metaphysical aspect is concerned, it is a demand for the determination of the existential status of the two in relation to each other.

The Democritean view of causation as a dynamic relation reinforced by Aristotle, had in course of time given place to the conception of a static relation of substance and qualities and in the system of Spinoza virtually disappeared into the logical relation of implication. But Galileo and other scientists gave it a fresh lease of life by asserting that causation is the transference of motion from one particle to another. The dynamic view of the world that results therefrom need not involve efficient causality for ~~that~~ implies the energisation of an agent similar to man.

Leibniz himself advanced the cause of science and wished to see the mechanical explanation carried through to its full extent, but at the same time he casts about for a view that would reconcile it to an ultimate teleological explanation.

Leibniz formulates the Principle of Sufficient Reason as the general demand of reason for explanation. This principle is really a combination of two distinct theses : (i) Every statement must be deducible from some other statement; (ii) Every real or existent has a cause that explains not only how but why it occurs.<sup>2</sup>

The first thesis must finally be accepted as referring to the logical, timeless relation of implication. And the second thesis is the law of Causation stating the connection between events at different times. The causal relation is regarded as necessary, and it involves both the temporal element of succession and the logical connection of ground and consequence.

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2. Ref. Monadology : Leibniz, Sec. 32.

Leibniz discovers a two-fold meaning in the principle of sufficient reason. He says that there are really two different principles under the same name. One of these is general and applies to all possible worlds; the other is special and relates to the actual world alone. The former is a form of the law of causality, asserting all possible causes to be desires or appetites; the latter, on the contrary, is the assertion that all actual causation is determined by desire for the good. The former is metaphysically necessary, while the latter is contingent and applies only to contingents.

The relation of cause and effect can never be purely an external one; the cause must be always in part a desire for the effect. This form of causality is the essence of activity, which, Leibniz says is metaphysically, necessary to substance. And in this form the law of sufficient reason is necessary and analytic.

In Aristotle's famous doctrine of causation, we have seen that except the efficient cause, the other three kinds of causes, i.e., the material, the formal and the final causes were considered too metaphysical.

In Hume's philosophy of the nature of the causal concept, we have found two different levels. At the metaphysical level (the joint resultant of Hume's adoption of the theory of ideas and of his interpretation of the 'contingency' of propositions concerning matters of fact) we meet Hume's atomistic claim concerning the separateness of all things, the absence of any 'real' causal connections. On the other hand, at the 'positive level', we find him ascribing more than mere 'linguistic' causality to nature.

We see that Hume's metaphysical reconstruction of causality in terms of belief, customs, instinct, imagination is evidently an analysis.

Cause in the popular sense of the word, denotes the attempt to carry out the principle of the inter-connection of events in a system along special lines by regarding every event as completely determined by conditions which are themselves previous events. That every event has its cause is understood both in every day life and in the sciences which uses the concept of causation, to mean that the occurrence and the character of every event in the time-series is completely determined by preceding events. In more technical language, causation for everyday thought and for the sciences means one - sided dependence of the present on the past and the future on the present.

Of course, it is easily understood that the principle of causation is not necessary logical deduction from the principle of Ground and Consequence. Cause is identical not with the whole true logical ground, but with the ground so far as it is discovered in connection with the temporally antecedent circumstances. That means cause is incomplete ground. This point is important, because it shows that principle of causation is not, like the principle of sufficient Reason (as Leibniz had maintained), axiomatic.

The world appears to us as a system of substances with attributes which stand to one another in various relations. There are the relations of co-existence, of equality and inequality and of interaction or reciprocity. Of these the relation of interaction

or reciprocity is the most important both for science and philosophy. A substance is real amongst other reals which act and react upon one another. That which acts is regarded as the cause and that which is acted upon as the effect, and the relation that obtains between the cause and the effect is called the relation of causation.

Regarding the causal principle of scientific procedure, the causal assumption must be pronounced to be neither an axiom nor an empirical truth but a postulate, in the strict sense of the word.

We are habituated to believe that cause precedes and the effect succeeds in our experience. So a time-sequence is involved in the causal relation. According to the highest development in physics, the universe is a continuous series of events (as Buddhism has stated) which admit of no cross-section. We talk about an event as cause and another event as effect, on the ground that the cause precedes and the effect succeeds, or on the other hand that one is prior and the other is posterior.

Again we may say that this event prior not only to the second event but also to all other events which goes towards infinite future, and do not remember that it has a similar connection with other events which goes backward to an infinite past. But it may be due to make a distinction of prior and posterior in our time honoured conception of cause and effect, though there is really no such discrimination. Because of this impossibility of temporal discrimination and of the distinction between cause and effect modern physicists like Sir A.S. Eddington, have come to make a

distinction between causation and causality. According to them, causation is simply the name for the ordinary conception of relation of cause and effect in which there is an assumption of temporal sequence. And the term causality has been conceived to represent the real relation between cause and effect. It is a symmetrical relation between cause and effect in which the whole universe, past and future is conceived as a connected system. As Eddington has maintained that, "cause and effect are closely bound up with times arrow; the cause must precede the effect."<sup>3</sup> Again he puts it, "in primary physics, which knows nothing of time's arrow, there is no discrimination of cause and effect; but events are connected by a symmetrical causal relation which is the same viewed from either end."<sup>4</sup>

In modern physics, causality has completely replaced causation. The entire universe past, present and future is connected into a deterministic scheme by relations of causality. Now from the above discussion we may say that the empirical and phenomenal conception of cause and effect has not only failed to give us a true picture of the physical world as a system of events, but also it makes the confusion between causation as subjectively conceived and causality as it objectively obtains in nature. Nature is a closed system of relations. We cannot simply say, as Hume has done that there is no objective causation in the world. Because, for causality there is an objective relation in the real world. It becomes subjective, in so far as Modern physics has maintained

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3. The Nature of the Physical World, Pg. 295 - Eddington.

4. Ibid, Pg. 295-296 - Eddington.

that the whole world is beginningless as well as endless series of events. Because of that it is impossible to introduce any time elements in the causal relation. Causality and causal relations are objectively true and science dealing with the objective world can accept only such objective relations. Hume in spite of his best efforts to represent the causal relation from the standpoint of Empirical and common sense conception has given us the subjective conception of it.

Kant has criticized Hume and has tried to show that causality is an objective relation. He says that when we have the causal judgment that "every event must have a cause", we go beyond the discrete and particular events and perform an act of synthesis. The judgment of causality flashes forth within the mind ' a priori and the tie of unity and necessity which it discerns perceived by the senses a posteriori. The judgment is formed within, when the mind comes into contact with those external phenomena that are inexplicable without it. Thus Kant's conception of causality is not wholly subjective. Its evidence is both within us and without, and therefore subjective and objective.

But Kant's explanation of causal relation has tended to give only an 'apparent' objectivity to it, because he has remained contented within the confines of experience like Hume and has never tried to base experience upon objective content. Dr. Whitehead expresses Kant's position most suitably when he states that Kant, for whom 'process' is mainly a process of thought, accepts Hume's doctrine as to the 'datum' and turns the 'apparent' objective content into the end of the construct."<sup>5</sup> So strictly speaking

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5. Whitehead : Process and Reality, Pg. 212

we are left by Kant just when we were in the empirical philosophy of Hume, as the problem of causality does not lead us beyond subjectivism.

S. Alexander has given us another view of causality from his own realistic standpoint. According to him, causality is a categorial feature of existents. Existences are motions, and every motion is continuous with other motions in the space-time continuum. So when a motion is viewed as continued into some other motion, the former is called the cause in relation to the latter which is the effect. Unlike Eddington, Alexander admits the necessity of the time-element in causal relation. For according to him, the reality itself is a Space-Time. On this ground he has made an objection of the concept of causality from the standpoint of Logical Atomism as advocated by B. Russell. To Russell causal relation is nothing but one of correlation. The development of modern science clearly points out that there are no such things either as cause or as effect. There is only quantitative correlation. Now an analysis into the Russelian position of Logical atomism shows that he only rehabilitates the Humean psychological atomism. The reality can never be viewed as composed of matters in different quantitative proportions, but it is a continuity.

From the standpoint of logical idealism the concept of causality has been strongly criticised by Prof. Bosenquet. He points out that the concept of causality has time-element inherent in it, but the time-element which is found on logical analysis is said to be self-contradictory. Because the ultimate reality is not in time. So the time-element should not be inherent in

causality and it must be replaced by the relation of Ground and Consequent. The same opinion had already been made by Spinoza. But we may say that the relation of ground and consequent is logical and it is conceived after the pattern of geometry. Again geometry is a science of Space and Reality can never be seen from the spatial standpoint. Reality is spatial-temporal also. So Besanquet's suggestion becomes inadequate. The concept of causality has also been strictly criticised from the metaphysical idealism by F.H. Bradley. He says that causation can never be causative. Cause can never be continuous with effect, because in that case to select the cause from the effect becomes impossible. Again he maintains that cause can never be discontinuous with effect also, for in that case the cause has to depend on something else to enable it to produce the effect. And this third something to make the cause causative will also necessitate a fourth something and so on ad infinitum. So cause can neither be continuous nor discontinuous with the effect which is a contradiction. But Bradley's view is not correct. Causality is a relation and if we treat it as a term, then it will lead us to an infinite regress. Stebbing has rightly suggested that in causality we have two terms in a relation, but not two terms and as relation. So causation has no difficulty to become causative.

Again we see that Prof. Alexander's advocacy of the conception of causality is absolutely not beyond criticism. His scientific bias has obliged him to visualize the origin and development of the world from the materialistic standpoint. But at the same time he could not remain blind to the existence and function of

value in this ordered and harmonious world. So he has been forced to introduce this 'Deity' under the name of a gignis into his material and naturalistic world.

Now from the above analysis, we may say that there is a Spiritual Reality which is dynamic, not static as is maintained by Brudley and Bosanquet. Again Reality is at bottom spiritual and not naturalistic as is maintained by Prof. Alexander. This dynamic Spiritual Reality manifests itself through the world of different objects and causality is a relation between these objects. The category of causality is applicable only within the world of empirical objects.

Things and events of the world are found to have behind them a purpose which is to be known through the world of becoming. In this world of becoming the causes and effects mechanically determining each other — a conception which is also very important for science. Any way, at present we may say that causation can only be appearance and never complete Reality and that no science which works with the concepts of cause and effect can give us the highest truth.

Again an important consideration is that our search of causes is mainly derived from the search for means to the practical realisation of results which are said to be the events. Primarily, we want to know the conditions of occurrences in order to produce those occurrences by setting up their conditions. Therefore it is for our practical purposes to seek the conditions of an occurrence exclusively among its antecedents.

Science which is a faithful agreement of empiricism and cannot accept anything which is beyond observation and experiment, has come upon the view of causation as merely a cause of motion and transformation of force or energy. When coal produces steam, causal relation involved in that case is nothing else than the transformation of solar energy into molecular energy. This is all that science understands by causation.

According to the empiricists, the whole universe with all its happenings is the realm of phenomenal sequence. Each phenomenon follows another without any objective necessity and connection. He also brings into his explanation the concept of uniformity of nature to prove his view that every event must have a cause and the same effect is produced by the same cause.

Deduction from self-evident principles must also be the method, by the aid of which metaphysics reaps the fruits of its analysis of the most general factors of the real, being, value, change, causation and the rest. Metaphysics must be expected to provide causal principles and logic should have something to say about the method by means of which causal laws may be discovered.

It should be mentioned, however, that a contrast occurs between the character of philosophy and the character empirical science. It may seem paradoxical to maintain that metaphysics is more solid and certain than physical science. Science appears to be a matter having much more detailed evidence and so much greater agreement than philosophy. If a greater truth-value is to be attributed to philosophy an explanation is required and this is

to be found in the difference between the kinds of evidence available in science and in metaphysics.

Metaphysical evidence is comparatively private and deceptive. It depends on the power of appropriate abstraction possessed by the thinker, so it is said to be easier than the experimental science. But it is also true that the metaphysical truth once proportionately established, is rigorous and definite. Different solutions recur from age to age, and the ways of thinking and the conclusions, that the thinkers have drawn are still alive.

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