

ON LOGICAL FORM OF ACTION SENTENCES

A teacher tries to make the point clear that no assertion can be made unless it is either supported by evidence or is justified through arguments which the student adamantly ignores. The teacher thumps the table between him and the student sitting opposite. The desk reacts to the thumping by generating wave-sequence in the atmosphere (perhaps of an unexpectedly high pitch) which, when reaches the ear, is called sound. The student, on the other hand, reacts by making the allegation -- the teacher has been deliberately trying to delay the submission of his work¹. The desk is unfortunately unable to make out any "deliberation" or "intention" of the teacher in the action described by "thumping the desk", but the student does. The student not only sees an "intention" in the action performed by the teacher but he also hopes to communicate the same to the higher authorities. Obviously, he does not see it as a mere "generation of sound". He does not describe his teacher's action as merely "thumping of the desk" but as "a deliberate attempt to delay the submission of his work".

Before the student can muster enough courage to face the higher authorities, he expresses his views to his friends and other teachers. Many of them are quite sympathetic to him. When he finds enough sympathisers (perhaps also advisers who suggest him what to do under the circumstances!), he finds himself in an enviable position -- the discoverer of the *truth*.² The truth being with him and he being with the truth, he prepares himself to take the *true*(proper) step. He, with his full conviction regarding the state of affairs, meets the higher authorities. After giving him a patient hearing, the highest authority, the Vice Chancellor, rejects his allegation as baseless. The Vice Chancellor does not see any "deliberate" intention of delaying the submission of his thesis. The Vice-Chancellor does not see any *connection* between "thumping the desk" and "deliberately trying to delay the submission".

The story has an obvious moral. The only witness to what happened between the teacher and the student are they themselves. But the

RECEIVED : 23/09/91

student found many sympathisers or so it seemed to him, while he had been telling about the incident of "thumping the desk" or "deliberately trying to delay the submission". Obviously, while describing the incident, he fails to put every details of the happening into words. It is not his fault. Every possible details of any happening is beyond description. Therefore, consciously or unconsciously, he is selective and thereby creating a sequence of happenings far removed from what actually happened. In other words, he puts his *intentions* into his *descriptions*. Though he would very much like to believe himself or give the impression to 'others' that his way of describing the happenings is the *only objective* way. Describing an episode, narrating a narrative, telling a story, even sympathising or agreeing are all done by human agents with some intention or motive. A human being without any intention is a contradiction in terms. But this posture, a being without intention, often pays, at least it helps to deceive oneself, as long as it is not clear to him/her that by suspension of intentionality (s)he has been reduced to mere animality. But a mere animal cannot read intentions of "others". This make-believe situation where an individual projects him(her)self devoid of any intentionality but able to find intentions in "others" is a kind of hypocrisy with which we all live and yet we vehemently deny. This unauthenticity is quite natural and almost necessary with ordinary existence.

This introductory note was meant to make it clear that actions are performed by agents with some intention. Such agents who can formulate an intention are specifically human agents and the unauthenticity described tells us that there are two divergent views on the nature of human beings. According to one view, human beings, in sharp contrast to non-human beings, is a being-off-the-world, a pure consciousness, a thinking being, a cogniser. Obviously, it is the Platonic-Cartesian legacy. According to the other view, human beings, like any other being, are beings-in-the-world, a mere body, a puppet. The unauthenticity is due to an oscillation between the two beings. But for the philosophers, since the days of Plato, two essences of the same being seemed contrary to reason. One of the beings -- either the being-in-the-world or the being-off-the-world -- is to be considered as *the* essence while the other is either to be explained or to be explained away. Thus, philosophers have been constantly searching for an essence for existence, somehow the essence and existence ought to coincide -- Platonic legacy again. Consequently, the search for an essence of human beings, following Platonic-Cartesian line, ended up with a being-off-the-world, a pure consciousness, a pure cogniser, only intention,

a thinking being. A reaction to such a view led some philosophers to the other extreme and they thought of human beings as a being-in-the-world, only performer, constant change.

Such a sharp distinction between the two conceptions of human beings, has led to two different forms of action sentences. Broadly speaking, we may decipher two different tendencies so far as the logical form of action is concerned -- extensional and intensional. According to the extensionalist thesis, actions are only a subclass of the class of events. In other words, actions are just out there, they are purely physical. Hence, a proper characterization of them is possible in terms of extensional language alone. On the other hand, the intensionalists are of the opinion that actions are intrinsically connected with the inner states of the agents -- the intentions, the desires, the will etc. On account of this internal element involved in actions, we must have a non-extensional language, an intensional language, for a proper characterization of actions. The two views are largely based on the nature of action, that is, whether action is primarily a change in the state of affairs or is primarily an intention of an agent to make something happen. Consequently, there has to be a presupposition regarding the nature of the agent as well, that is, whether a change in the state of affairs is brought about by an agent out of necessity or the agent brings the change about out of his free will.

The logical form of action sentences, according to the extensionalist thesis, can be characterized purely in terms of extensional language, that is in terms of first-order predicate logic. This is possible because, actions are thought of as mere changes among the states of affairs. Actions are events. For example, the action sentence, "The teacher thumped the desk" would take the form :-

$$(\exists x) [\text{thumped}(\text{the teacher, the desk})x] \quad \dots (1)$$

which in quasi-English may be read as, "There is an event, x , such that x is thumping of the desk by the teacher". An action acquires its designation due to its peculiar position in the causal nexus. An action is preceded by a mental event where there is an appropriate want and desire. For an explanation of the performance of an action, according to this view, it is necessary and sufficient to cite the causal antecedents of the bodily movements associated with the action, namely the agent's wants, desires, beliefs etc. An immediate consequence of this is that an action is not identical with the associated bodily movements. That is, "Thumping the desk" is not identical with "Moving the arm". An action is a complex event

involving at least bodily motions, neurological events and brain events. The wantings and believings are part of the action performed. The logical form of the action sentences take the shape :-

$$(\exists x) (\text{willed to thump}(\text{the teacher, the desk})x) \text{ caused} \\ (\exists x) (\text{thumped}(\text{the teacher, the desk}) y) \dots (2)$$

Hume taught us that causes and effects are distinct events. In other words, neither any part of the cause should be the effect nor any part of the effect should be the cause. Since wanting and believing are wholly accommodated in the action performed, can wanting and believing be also causes of the action performed? An escape from this dilemma can be found if one equates action with the bodily movements. In that case, analysis of action sentences would take the form of a series of conjunctions of sentences starting from a want and ending up in the bodily behaviour via beliefs³. Under this modified theory of the extensionalists, the objections are bypassed since bodily movements associated with actions are neither part nor include the believing and willing associated with the action. However, this modified version has its own problems. The most important of them all being that of explicating the notion of bodily behaviour associated with actions -- can we call, "moving of one's arm in sleep" an action? Secondly, the notion of action becomes too narrow. There are no non-basic actions. The sentences like, "The teacher deliberately tried to delay the submission of his work" are not action sentences at all but is only a short expression for a causal chain in which "the teacher moved his arm" is an action sentence which in turn logically generates the sentence, "The teacher moved his hand to hit the desk".⁴

It is important to make a distinction between *doing* and *bringing about*. By *doing* certain things we *bring about* something else. For example, by "thumping the desk" the teacher brings about a "delay in the submission of his work". The thing done is the *result* of an action and the thing brought about is the *consequence* of the action. The connection between an action and its result is logical or conceptual. If the result does not materialise the action simply has not been performed. The distinction between the result and the consequence of an action opens up an unending debate regarding the distinction between a basic action and a non-basic action. We cannot afford to get involved into the debate here. It is sufficient for our purpose to mention that the distinction, in an important sense, is relative. But an action is to be distinguished from bodily movements. An

action is essentially intentional.⁵ A bodily movement may just occur, may be due to conditioned reflexes. An element of intentionality is always associated with action. In fact, the intentional element differentiates actions from events. It is true that both action and event imply change and by courtesy we may call non-change as events or refraining etc., but actions are characteristically different from the events in the sense that events are mere change, while actions are intentional change⁶.

However, the category of events itself is no less dubious. There has been no general agreement regarding the nature and ontological status of the category of events, among the philosophers. Three distinct lines of thought have been generated depending upon the linguistic expressions at our disposal. On one view, events are particulars, in very much the same way as my body or this paper is. Strictly speaking such event particulars, though spatio-temporally locatable are not repeatable. The greatest advantage of such a theory of events is that events can be expressed in a purely extensional language. We can only name the events and each event will bear different name. The events are object like. Such a view may be ascribed to Heraclitus or the Buddhists. The ontology of events will remain epistemologically opaque, since the occurrence of an event and its description are temporally separated entities. On the second view, events are thought of as a complex of particulars and properties. Here, of course, events are construed as abstract and repeatable entities but provisions have to be made for quantifying over the properties as well in the language for an adequate description of them. That is, such a view on events requires a higher order language for a proper characterisation of events⁷. According to the third view, events are proposition like objects, in the sense that they are repeatable but not spatio-temporally locatable. Thus, events are abstract entities. For a proper description of an event, under such a view, a provision for quantifying over propositions should be made. Thus the language used is not extensional any more. But events have a dual nature, in the sense that it has a generic element through which identification of it is possible while it has a particularity through which it can be spatio-temporally located. That is, a generic type of event is capable of being instantiated again and again though every instantiation is somewhat different from the others. Thus, the category of event must make room for an abstract entity, the event-type which itself is not spatio-temporally locatable but which can be instantiated in some spatio-temporal locations. Events are abstract as well as concrete. The very possibility of an abstraction from a concrete situation makes it possible that the events can

be identified and re-identified again and again across spatio-temporal boundaries. In nature, we find a continuous sequence of change. But to comprehend and to describe this continuum, as adequately as possible, we have to assume a discrete time medium. Characterisation of change involves the temporal notion of "And Next"⁸ which can make sense only in a discrete time medium. There is no escape from Zeno's paradox, if we grant a continuous time medium -- change becomes impossible, we are trapped in a ceaseless changelessness. Thus, at the conceptual level, a segment of the continuous time is cut out and frozen and is given a name. This process, we may call an *abstraction*, or *fixation*. Once such a segment is abstracted or fixed and is given a name, the segment itself forms a unit which may have many sub-units as well. These units, once given a name, once abstracted, once fixed, does not retain the original sequencing pattern any more. On the contrary, it generates possible sequencings out of all or some of those times to retain the name. Such abstractions may be at different levels, having finer or coarser items which form their own units to make a larger unit. This itself is a complex issue and requires another occasion.

The fundamental units or building-blocks for an intensionalistic theory of action sentences would be propositions or proposition-like objects and a monadic operator over them. The notion of the operator is that something is *made true*, some propositions are *made true* by an agent in any action. The basic syntactical expression in this language would be something like -- an agent, A, performs an action, a, such that the proposition, p, is made true. What corresponds to an event in this framework, is a state of affairs which is brought about and a description of which is made true. Thus, the notion of states of affairs and obtaining of them are implicit in the ontology. Corresponding to the states of affairs, we have propositions to describe them. For the sake of brevity, instead of writing, "an agent, A, performed an act, a, such that the proposition, p, is made true", we may simply write, "A does p". However, the point to be noted here is that an agent can never do p, which is a proposition; he can only do something which makes the proposition true or false. Thus, for action sentence, "an agent does p" we may write 'Bp'. Obviously, its negation would be 'NBp', and 'BNp' its contrary (Using the standard Polish Notations). The negation of "an agent does p" would be "it is not the case that an agent does p" (NBp) while "an agent does not do p" would be the contrary (BNp). Some are of the opinion that 'Bp' is closed under conjunction elimination. That is, if p and q is brought about then p is brought about and q is brought

about :

$$CBKp qKBpBq \quad \dots(3)$$

is valid. If we are thinking of successful action, we may reasonably assume that if p is brought about then p is the case :

$$CBpp \quad \dots(4)$$

It obviously suggests a close resemblance of structure between modal logic and some locutions of actions. However, the structural resemblance breaks down under a closer scrutiny. If (2) and (3) are added to the axioms of the classical propositional logic, we will get :

$$CBNpBCpq \quad \dots(5)$$

as a thesis which in quasi-English may mean something like if not p is brought about then if p then q is brought about. This is one of the paradoxes of strict implications. Nevertheless, the basic insight that one can derive from the intensionalistic approach towards action sentences is that action is to be construed as a change among the state of affairs brought about by an agent - a proposition is made true by bringing about the corresponding state of affairs.⁹ Such a view, obviously puts man at the center, in the sense that the world as such is a ceaseless, directionless, change but man through his deliberate interventions may alter the course of happenings, may make something happen, may give a direction. The man, instead being an actor, becomes a director. An agent's intentions and other internal aspects are all important that enable to view the change in a particular form. Thus, we find that the two views on the logical form of action sentences stem from the two views on the nature of the agents, the nature of human beings. For a mere being-in-the-world, actions are events and consequently caused by some other events (Davidson). For a mere being-off-the-world, actions are proposition-like and are goal-oriented, teleological (Von Wright). The extensional character of the agent, the thingness of the agent, makes it possible to view actions as mere events and thus action sentences are extensional. The intentions of the agents give rise to the intensional character of the action sentences.

It was observed earlier that to characterise a continuous change the continuum has to be broken into bits and a name is to be given, a process of abstraction and fixation is involved. Only by fixing a segment of a continuum, one can comprehend it and can talk about it. In other words, a description of an action is made possible by externalizing the act from the agent. The externalization of the act from the agent is made possible only through the availability of a system of symbols, a language. To

externalize the act from the agent, a fixation is needed and to fix an action is to describe it in some language. Let us take a concrete example. "The teacher was unnecessarily critical of the paper". The act of "being critical" does not involve any particular agent, that is, one can very well say, "someone was critical" without being specific about the agent. This is how the act of "being critical" is abstracted from the actual happenings. Thus, the act of "being critical" is externalized from the agent, the teacher. Moreover, human actions which are expressed in language by a verb allow for a plurality of arguments ranging from no argument (being critical) to an indefinite number of arguments (*the teacher was unnecessarily critical of the student's article on....*)⁹. This variable polyadicity of the verb forms appearing in the action sentences is typical of the fixation of an action. Each addition of an argument delimits the possibilities of interpretations, adds specificities to the mental spaces around the description of the action. The situational variabilities are overlooked through abstraction and again an attempt is made to situate the description of an action through the additions of the arguments, by adding specificities. The world, as such, with or without any human beings, is a continuum, while the conceptual apparatus breaks the continuum into bits. To act is to bring about a change in the states of affairs while to describe action is to freeze the change. The audience in a cinema hall sees the continuous unfolding of a sequence, but the technology behind has captured only the frozen frames.

The dialectics between change and permanence makes the problem of action sentences interesting as well as intriguing. Action, as such, is usually directed towards a sequence of changing patterns but a description of it tries to bring it out of the spatio-temporal frame. A temporal sequentiality involved in any action is made atemporal by giving a description to it. Metaphorically speaking, a description of an action immortalizes the action. A human action which is usually in the form of a discourse is made a document by giving a description to it. It is true that a being-in-the-world makes the movements, but the being-off-the-world plans the movements. Action definitely requires an agent and an agent is neither a pure being-in-the-world nor a pure being-off-the-world. A human agent is neither totally determined by the external forces nor is he totally free to make anything happen. An agent acts with an intentionality, he has a practical reason for his actions. He has to make plans and thereby describe actions in advance. An agent has to be a cogniser, a being-off-the-world in order to make an action-like movement in order to be in-the-world. Cognition leads to action and through actions we cognize. There

seems to be a circularity at the conceptual level. In actual practice, there is no circularity. The ability to act and the ability to cognize are the two sides of the same coin. An agent without a world is just intention, while a world without an agent is mere change. It is only in action, human action that is, the world and the intention are brought together -- man transcends mere animality and becomes a rational animal. In other words, man, an agent, though placed amidst the changing sequentiality of the world becomes capable of comprehending it. Thus, action becomes describable and describing itself is an action. This brings us to the fact that human actions, like speech, are means of communication. Hence it has the dual principle of being a text in a context.¹⁰

It was earlier observed that a human individual, an agent, is neither merely a being-in-the-world nor a pure being-off-the-world, but these are the two dimensions of the human individual. The two dimensions are so fused together that only at the conceptual level, a separation between the two is possible but not at the ontic level. Of course, the Indian concept of Nirvana or Mukti suggests that such a separation at the ontic level as well. But the the whole problem of action and action sentences would take entirely a different turn. Thus, any theory of action which emphasises only one aspect of the agent is bound to be a partial theory in the sense that it characterises only one side of the coin and refuses to accept even the existence of the other side. Such theories have a fixed conceptual frame-work and dogmatically refuse to accept anything that eludes their conceptual scheme. This dogmatic refusal gives a facade of omniscience of which the whole of Western philosophy is a victim since the days of Plato. The cogniser, the knower, is always conceived as a being totally cut off from the world, a being-off-the-world, though everything else is a being-in-the-world. It is true that for any cognitive enterprise, there has to be a conceptual separation between the subject, the cogniser and the object of cognition. But this separation need not be at the ontic level. For a cognition to be *objective* there has to be an *object* as different from the subject, of cognition. Thus, the subject-object distinction has to be made at the conceptual level. But this distinction, if stretched to the ontic level, we get a distorted picture. One has to remain satisfied with this distorted picture in order to eliminate doubt, to be certain.

In order to set the picture right, we would like to make a distinction between two types of action sentences -- action sentences from the agent's point of view and action sentences from an observer's point of

view. Action sentences from an agent's point of view is less problematic in the sense that they are like avowals -- incorrigible, if the agent is taken to be honest. However, the agent himself may describe his action as an action of being-in-the-world, as causally determined and sometimes as an action of a being-off-the-world, as teleologically oriented. Often the agent denounces any responsibility of his own action and takes refuge in the safe custody of causal determination, becomes a pure being-in-the-world. Occasionally, he accepts the responsibility of his actions and becomes a being-off-the-world or the master of the world. The more problematic cases are action sentences from the observer's point of view. In this case, responsibility is assigned not to the self but to an agent who is an 'other', an 'other' is held responsible.

When an action is performed, something is brought about, some event takes place, some change is found in the existing state of affairs. The very fact that we describe it as an action performed by an agent, we assign responsibility to him. This assigning of responsibility to an agent, an 'other' implies that he could have done otherwise. In short, we refuse to accept that the agent performed the act of necessity. Thus, an agent is assumed to be a being-off-the-world, who is capable of contemplating, who, as a cogniser, must have cognised (at least contemplated) the consequences. Thus, an agent, in order to be an agent, must transcend the mere objecthood of being-in-the-world. Yet, the agent cannot be totally lifted out of the world and assigned a place beyond it. He maintains contact with the world by deriving his group-identity through some socially given myths, *lebenswelt*. Thus the agent's subjective intentionality gets objectified through the socially accepted norms and myths of the society to which he belongs. This does not mean that an agent acts with a complete obedience to the social norms. On the contrary, the role played by an individual in a society is never totally determined. An agent performs within a given broad frame-work whose minute details are always filled in by the agent himself. Thus, we may conclude that to differentiate action from the events, to act, there is a primacy of the being-off-the-world over the being-in-the-world. Since through a process of contemplation, cognition etc., an agent makes a non-actual possibility actual, the very actualisations of the non-actual possibles are actions. The very idea of a possibility emerges from a being-off-the-world. Only by transcending the world, one can look beyond. A mere being-in-the-world is monogamously wedded to 'is', a being-of-the-world is also monogamously wedded to the 'ought' or 'could'. A being-off-the-world is totally cut off from the actuality, it loses contact

with the world, it is a pure consciousness, he can only play with the concepts, actualisation of them is an impossibility. A being-in-the-world, on the other hand, is pure matter, devoid of any intentionality, reduced to thinghood, possibilities are beyond the grasp. But an actual agent is neither a pure being-in-the-world nor a pure being-off-the-world but rather a hybrid of the two, a being-in-off-the-world, and that is why he has to grapple with not only the 'is' but also with what 'could have beens' or what 'might have beens'.¹¹

Department of Philosophy
University of Hyderabad
Hyderabad - 500 134.

CHINMOY GOSWAMI

NOTES AND REFERENCES

1. This is a very common scene in the universities now-a-days. There are reasons much deeper than what meets the eye at the very first glance. A thorough data-based sociological investigation in this area is long due.
2. It is usually believed that *truth is objective*. The notion "objective" has created a lot of confusion regarding the nature of truth. It is debatable whether the notion of objectivity is related to objects, facts, state of affairs and the like or is related to the social agreement or consensus. For such perspectives see Mulholzer, P - "Objectivity", *Erkenntnis*, 1988, pp.185-230; Gilbert, M. - "Modelling Collective Belief", *Synthese*, 1987, pp 185-204; Goswami, C. - "Science, Society and Objectivity", *Filozofska Istrazivanja*, 1987, pp 553 - 558.
3. See Goswami, C. - "Bringing About", *Indian Philosophical Quarterly*, 1986, pp. 177 - 184.
4. See Davidson, D. - *Actions and Events*, Clarendon Press, 1980; Also Mohanty, S.K. - *The Concept of Human Action : An Analytical Approach*, Ph.D. dissertation 1989(unpublished).
5. See, von Wright, G.H. - *Freedom and Determination*, North-Holland, 1980; Gautam, S.P. - *Reasons for Actions*, Ajanta, New Delhi, 1983; Bandopadhyaya, T. - *Man*, Papyrus, Calcutta, 1988.
6. For a detailed discussion on the difference between actions and events see Gautam, S.P. *op cit* and for their identification Davidson, D. *op cit*.

7. Kim, J.; "Causation, Nomic Subsumption and Concept of Event" *The Journal of Philosophy*, 1973, pp. 217 - 236; "Causes and Events: Mackie on Causation", *The Journal of Philosophy*, 1971, pp 426 - 441; "Causation, Emphasis and Events", *Midwest Studies in Philosophy*, 1977, pp 100 - 103, Barwise, J. & Perry, J. - *Situations and Attitudes*, MIT Press, 1983.
8. For an argument in favour of discrete time medium and the necessity of such a medium, see von Wright, G.H. - "And Next", *Acta Philosophica Fennica*, 11, pp 293 - 304
9. Kenny, A.; - *Action, Emotion and Will*, Routledge and Kegan Paul, London, 1963, in which he brings out the polyadic nature of the verb form.
10. Habermas, J. ; - *On the Logic of the Social Sciences*, Polity Press, MIT, 1988.
11. An earlier draft of this paper was presented in a seminar organised by the Indian Philosophical Association. I am thankful to the participants for their comments and remarks. I am also thankful to all my colleagues and the students of the department of philosophy, university of Hyderabad as they provided very useful insights through their actions while I was revising this paper.