

## IS RATIONAL EXPLANATION DEDUCTIVE ?

I will be concerned in the following with a problem regarding the explanation of rational action to which I will refer ( somewhat unwillingly ) as rational explanation after Dray. The question is : is rational explanation hypothetico-deductive in nature or not ?

Briefly, the Dray-Hempel controversy is this : Dray argues that rational explanation proceeds by appeal to principles of action which are not laws; hence the explanations that rest on them are non-deductive.<sup>1</sup> Hempel's answer to this is that in so far as Dray's model is truly non-deductive it is also unsatisfactory as an explanation, since no appeal to a principle of action can explain its being followed by any particular agent. If on the other hand, one adds the premise that agent A was disposed to act rationally and also modify the premise stating the principle of action, presenting it as a generalisation of how in fact rational agents act in a given situation, then the explanation of A's ( rational ) action is indeed satisfactory but now is clearly deductive in nature. Laws, in other words, are in principle unavoidable.<sup>2</sup>

To this debate is added a further dimension by Donagan when he claims that rational explanation really rests on analytic truths; it is deductive but not hypothetico-deductive.<sup>3</sup>

My contention in the following will be that all explanation can indeed be shown to be deductive in nature. This follows from the fact that any explanation which claims something more than just psychological value must depend heavily on logic for its acceptability. Thus it is deductive and also does rely on general principles. But these principles do not have to be covering laws though of course there is nothing to rule out that possibility; principles of inference will suffice to make an explanation logically satisfactory.

Let us look at the alternative formulations of the model for rational explanation.

*Dray* . . . A was in situation of type C.  
           In a situation of type C, the appropriate thing  
           *to do* is X.  
           Hence A did X.

*Hempel* . . . A was in situation of type C.  
           A was a rational agent.  
           In a situation of type C, any rational agent  
           will *do* X.  
           Hence A did X.

That Dray's major rejection of the H-D model (as adequate for the explanation of rational action) lies in its deductive form, is unambiguously stated by Dray :

"In view of what has been said about non-deducibility of the *explanandum*, it should be clear that my quarrel with this is that it does get the form, not the content, of rational explanations wrong."<sup>4</sup> Hempel on his part sees no way of introducing the notion of rationality into an explanation except by changing Dray's model in two respects which are :

"First, the assumption that A was a rational agent is explicitly added; and secondly, the evaluative or appraising *principle of action*, which tells us what is the thing to do in situation C, is replaced by a *descriptive generalisation* telling us how a rational agent will act in situations of that kind : but this restores the covering-law form to the explanation".<sup>5</sup>

Are both these changes strictly necessary in order to turn Dray's model into a satisfactory one ? Clearly the assumption that A was a rational agent can bear explicit statement and I doubt that Dray would object to its addition. A modified Dravian model would then be :

- (1) A was in situation of type C.
  - (2) A was a rational agent.
  - (3) In a situation of type C the appropriate (rational) thing *to do* is X.
- Hence A did X.

It would, I submit, be difficult to insist that this is still a clearly unsatisfactory explanation of why A did X. Yet, since premise 3 still cites a principle of action, it contains no law; moreover, it is at least not explicitly, deductive in form. It would of course be unacceptable to Hempel who would argue that the second change he suggests is also essential. On what grounds would that be? Clearly the grounds that one may not deductively infer the explanandum "A did X" from the premises, since the major premise refers to a principle of action rather than a lawlike generalisation. That his objection is not to principles of action *per se* but to their rendering an explanation non-deductive is clear when he says:

"In this disagreeing with Dray's analysis of rational explanation I do not wish to deny that an explanatory account in terms of motivating reasons may well have evaluative overtones: what I maintain is only that whether a critical appraisal is included in, or suggested by a given account, is irrelevant to its explanatory force and that an appraisal alone, by means of what Dray calls a principle of action, does not explain at all why A did in fact do X".<sup>6</sup>

Why not? Because—and we have been here before—from "X is the thing to do" we may of course not infer "X was done".

At this point the disagreement has clearly hit rock bottom. Dray insists on working principles of action for rational explanation. Hempel insists that such explanation be deductive. Can we get out of the impasse? I believe that one can, that Hempel is right in insisting that explanation is deductive but mistaken in holding that only laws or law like generalisations will make it so. For if one takes seriously the view that rationality is itself a relative concept, largely dependent on the agent's own perception of the situation he is in, then one can evolve a model of explanation that is clearly deductive but which does not involve laws. Thus we get the following:—

- (1) A believed that in a situation of type C, the thing to do was X.
- (2) A believed that he was in a situation of type C.
- (3) If A believed that he was in a situation of type C, and that in *this* situation, the thing to do was X, then A did X. Hence A did X.

Premise 2 is clearly not redundant for in order to explain why A actually did X, one must refer not only to his beliefs connecting situations of type C with action X but also his belief that he was in such a situation. I thus disagree with Hempel when he says that "a critical appraisal...is irrelevant to (an explanation's) explanatory force."

But now we see that premise 3 is really the unpacking of the statement "A was a rational agent" the inclusion of which Hempel rightly argues for. However, this unpacking itself turns out to be more Dravian than Hempelian.

It is interesting but not absolutely essential for our present purposes to determine whether belief and action and analytically related i.e. whether 3 is a Donagan type premise or not.<sup>7</sup>

The point is that it is not law-like not even in the sense of being dispositional. It simply connects A's action with his perception of the situation he was in and his critical appraisal of it, which together are its sufficient conditions. And it is clearly deductive.

I.I.T., Kanpur.

M. Mullick

#### NOTES

1. Cf. Dray, W. : *Laws and Explanation in History*.
2. Hempel, C. G. : "Rational Action", *Proceedings and addresses of the American Philosophical Association*, Vol. 35, 1961-62, p. 5-23.
3. Donagan, A. O. : "Rational Explanation rests on Analytic Truths" in Krimmerman, L. ed. *The Nature and Scope of Social Science*, p. 314-16.
4. Dray, W. : "Rational Explanation makes no use of empirical laws", in Krimmerman, L., *The Nature and Scope of Social Science*, p. 307.
5. Hempel, C. G. op. cit., p. 12-13.
6. Hempel, C. G., op. cit., p. 13.
7. Note that the acceptance of Donagan's interpretation does not render the explanation itself a tautological unravelling of meanings. For even if actions are analytically related to beliefs, the content of A's beliefs remains a matter of empirical discovery. Donagan in any case claims analytic connections between intention and action rather than belief and action.