

THE RATIONALITY PRINCIPLE : ITS ROLE IN SOCIAL SCIENTIFIC EXPLANATION

I shall be concerned in this paper with a somewhat formal question regarding the rationality principle : the question of its logical status and role in social scientific explanation. I am centering my discussion around the formulation of the rationality principle (henceforward RP) offered by Popper¹ and of the Imperfect Rationality Principle (IRP) offered by Watkins² because both these writers have been specifically concerned with the methodological question of the status and role of the principles they offer as fundamental to social scientific explanation.

Assuming that scientific explanation is hypothetico-deductive in nature, Popper argues that an explanatory model for the natural sciences, gets animated by the so-called laws of nature. It is these that transform a static mechanical model into a dynamic explanatory system. In the social sciences this role is performed, so the claim goes, by the rationality principle : 'the principle of acting appropriately to the situation.' It is important to notice that in Popper's use, the term 'situation' already contains all the relevant aims and all the relevant knowledge, especially that of the possible means for realising these aims. For Popper, then, RP is the principle of acting appropriately to, or in accordance with, one's aims and knowledge in a given situation.

I wish to raise here the following questions :

Accepting the rationality principle as an animating principle of an explanatory model, what is its exact logical function in the model? Secondly, to what extent and in what manner is the rationality principle comparable to laws of nature in a physical model? In answering these questions I will reject some characteristics of RP that Popper attributes to it and show how other features are attributable only by assigning to it a role other than the one Popper actually credits it with. I will conclude that Popper's analysis of RP suffers from an equivocation in the use of 'rational'.

Let us eliminate at the start some possible misconceptions regarding Popper's formulation of RP. Firstly, it is not a norma-

tive principle, an injunction that men shall act in certain ways. Such an injunction can clearly not feature in an explanation of why people do act in the ways they do, any more than the ten commandments can explain the social phenomena of the Christian world. Secondly, RP is not a psychological law. It is not a descriptive generalization of the ways in which people actually do act. Situational analysis reveals as its components not individual or even social experiences, but 'abstract and typical situational elements' such as aims and knowledge. To leave no doubt as to Popper's intentions I quote :

'If you look upon the rationality principle from the point of view which I have here adopted, then you will find that it has little or nothing to do with the empirical or psychological assertion that man always, or in the main, or in most cases acts rationally.'

There must then be a third description under which we introduce the rationality principle, and it is in determining this that Popper's formulation faces, in my view, very real problems. If a principle is not a law of psychology, not a rule of conduct then we are faced with at least three other possibilities. It is either an empirical conjecture of some sort though non-psychological, or an analytic truth, or it is not propositional in nature but is a rule of inference. Popper's own view is the rather unusual one that though RP is an aspect of or a consequence of a methodological postulate, it is not itself a methodological principle but rather an empirical conjecture 'that is, an integral part of every, or nearly every, testable social theory.' Actually, it is not even a true conjecture since it is plainly not universally true that men act rationally; hence RP is just false, even if very nearly approximating the truth. Again, in spite of its empiricity, Popper regards it as 'a kind of zero-principle', almost empty. All this follows from the methodological rule enjoining us to leave RP unquestioned in any situation requiring explanation and to 'pack or cram our whole theoretical effort, our whole explanatory theory, into an analysis of the situation : into the model.' The effect of observing this rule is of course to treat RP as though it is unfalsifiable and to throw the entire burden of the task of explanation on the model itself—on situational analysis.

For in any comparison of two competing explanations, since they would both assume RP, it is pointless to question what they have in common. Far more interesting and informative would be an examination and testing of the remaining premises in their respective explanations.

Now it is true that in offering an explanatory model of human action, the agent's intention of acting appropriately to the situation as he saw it is hardly the first thing to cast doubt on. But given Popper's formulation of RP it is not at all clear, that his claim that it is an empirical conjecture can be substantiated. And this does not stem from the fact that he would like to treat RP as unfalsifiable, though it is related to it; it stems rather from his definition of rationality in terms of the logic of the situation. For it is important to remind ourselves that 'situation' for Popper is really 'situation-for-the-agent' or situation-as-the-agent-sees-it. This means that many actions that strike the on-looker as inappropriate or inadequate can be shown (by invoking RP) to be adequate in terms of the agent's perception of his own situation. To use Popper's own example: The inadequate actions of war leaders may nevertheless be shown to be adequate from the point of view of 'their limited experience, their limited or overblown aims, their limited or overexcited imagination.' If this is so then it is difficult to see how any action in the final analysis could be shown to be anything but 'rational'. If to act rationally is to act according to one's knowledge and information, given (where relevant) the appropriate skills to do so, then to say that RP is not 'universally true is to say that there are occasions when an agent having a given aim and possessing the relevant information, skills and opportunities still does not act according to his aim. Can such counterexamples be constructed within Popper's own theoretical framework? Popper gives as an example of the empirical falsity of RP, the case of a flustered driver 'desperately trying to park his car when there is no parking space to be found.' I am not sure what this example proves, since important conditions that Popper himself lays down are not fulfilled here, viz. the condition that the agent has made an appraisal of the situation, which it is most unlikely that a flustered driver would have done and that he has the means of

realising these aims. In any case the example is offered altogether too casually for us to set much store by it, even in fairness to Popper.

At this point it might be useful to look at a variant of Popper's RP that has been advanced and defended by Watkins: the imperfect rationality principle. This principle was specifically put forward by its author to account for those unsuccessful or seemingly irrational, even crazy actions, in which the history of mankind abounds and which in any case are far more challenging from the viewpoint of explanation than the staid and orderly actions of 'normal' people. I am discussing IRP here, though, only from the perspective of what light it might throw on the question of the status of the rationality principle in social scientific explanation.

Watkins regards IRP as a fundamental principle (on a par with the conservation laws of physics) which is to be 'treated as *unfalsifiable* in the interest of the *falsifiability* of the whole system.'³ This formulation makes interesting comparison with Popper's view which sees RP as comparable to laws of nature in the physical model rather than to theoretical principles from which laws are themselves derivable. True, there is no very clearcut conceptual distinction between the two; they can be more plausibly arranged in a continuum than in distinct categories. Still it would appear that the stipulation of treating IRP as unfalsifiable is more compatible with Watkins' view that sees it as a fundamental part of the theoretical framework of explanation than Popper's on which RP is regarded as a false empirical conjecture. There is after all a difference between empirical falsity and theoretical revisability. One might want to defend Popper's interpretation of RP by arguing that it is comparable to laws of nature in a physical model since these are also quite often merely assumed to be true, since within the framework of broad theory they might themselves be questioned. And I think if Popper made some such assumption, his position would be decidedly more acceptable. But this is not how he regards RP. He does say categorically that the principle is false and is willing to accept as a consequence that every explanation in the social sciences is false. I quote :

'the rationality principle seems to me clearly false...I think there is no way out of this...Now if the rationality principle is false, then any explanation which consists of the conjunction of this principle and a model must also be false, even if the particular model in question is true.'

Popper argues that even in physics 'any model... must be an over simplification' and hence false. But there is some equivocation here. If a law of nature is once clearly refuted, it is most unlikely to continue to get invoked in scientific explanation. (This is of course not to ignore the question of the *limits* of the operation of a scientific law.) Also, laws of nature get plenty of deductive support from more fundamental theoretical assumptions which RP does not, or at least, has not yet received.

To return to Watkins' interpretation—IRP was first advanced with a view to showing how seemingly irrational actions can be explained with the aid of a principle that can be used 'to *rationalise irrationality* and failure'⁴ (italics mine). This expression is of some significance for my analysis; nor is it casually used by Watkins, for it reappears as part of the heading of a section of his paper: '6.3 Rationalising the irrational: a case study'. Now Watkins does argue very convincingly against the thesis that unsuccessful actions cannot be explained, by showing how with the aid of IRP, the explanation of one very tragic incident in naval history can be reconstructed. But I am at the moment less interested in this aspect of IRP than in the analysis of how precisely it is employed—what its role has been—in the reconstruction of events and the offering of a plausible explanation. And here again we find that the plausibility of the explanation rests entirely on the scientist's ability to show the inherent appropriateness of the action from the agent's point of view. So that whereas the notion of an explainable unsuccessful action is demonstrated by Watkins to be perfectly consistent, that of an explainable irrational action cannot be so easily demonstrated, at least not the way the concept is employed in the Popper-Watkins model. Yet Watkins along with Popper does see IRP as a synthetic principle; then it must be possible to find counter examples. We saw that Popper's counter example carried little weight; let us look at one of Watkins'. At one place Watkins

constructs the hypothetical case of a man who is booked on a flight which for a number of reasons it is important for him to catch and which he fully intends to catch. Of such a man Watkins claims that 'It is *logically* possible that he will change his mind for no reason.' But I wish to show that this is far from the simple matter that it is made out to be.

It would of course appear to be madness itself to question the assumption that irrational actions are possible and I do not wish to appear to be doing that. Indeed it is the obviousness of this assumption that lends such a strong air of plausibility to the claim that RP is synthetic. What I wish to argue however, is that unless different senses of 'rationality' are kept apart, then on the logic-of-the-situation model 'irrational action' becomes synonymous with 'unintelligible action' and with 'unexplainable action'. Something like this is in fact admitted by members of the Popper school. For instance Jarvie says, 'We find not understandable those explanations of human behaviour which do not render it "reasonable"'.⁵ But whereas Jarvie does seem to suggest that he is employing 'reasonable' in a rather special sense, Watkins talks without reservation of 'rationalising the irrational'. All this surely suggests that there are only *apparently* irrational actions, or at least that the only intelligible actions are those that can be rationalised. But then in what sense is RP synthetic? In what sense is the example of a man's not catching an important flight which he clearly could have, a counter example within the explanatory model suggested by this school? Would we say that we had explained the man's action by saying that he acted for no reason? Clearly not. We would rather continue to look for a reason which would explain his action. In a case like this we are likely to find that the man acted on impulse. Perhaps he had seen a pretty face at the party he had just attended and was driven by a wild desire to meet its owner again — [And we could (I suppose) call this an irrational action in the face of his more serious interests and commitments] [Certainly the action would be explained if some such discovery was made]. The point is that from the *agent's* point of view, *his* perceptions and situational appraisal (however momentary) the action of not boarding the plane is not 'unreasonable'.

Since the point is crucial I wish to discuss another example of irrational behaviour from Watkins' paper. This concerns a young woman who having come early and found a seat on the train justifies to herself not giving it up to an old lady who is standing. She decides not to get up, yet immediately after, does so and surrenders her seat. Watkins refers to this as an example of 'human inconsistency' and argues that it is instances such as this that necessitate interpreting RP as synthetic and non-necessary. What Watkins never tells us is how he decides when he has before him an example of 'irrational' behaviour that should be rationalised and when one of genuine irrational behaviour that is to be left 'just as it stands'.⁶ Why should this example of the young woman's action not also be counted among the more interesting cases to which IRP could be successfully applied? There is something almost sinister about a conclusion (to which Watkins is forced) that would label a young woman's remaining in her seat while the old lady kept standing *rational* and would dub her act of kindness *irrational*. This is specially ironical in the context of Watkins' own plea at the end of his paper against the dehumanisation of persons by the social scientist.⁷

But I want to argue a point somewhat stronger than the previous one, which is that the example being discussed is clearly one in which the rationality principle would succeed. For though the young woman's perception of her situation included that of her own fatigue, of the fact that she had bothered to arrive earlier to get the seat, of her emotional problems and the need for physical comfort on a sweltering train, there is little doubt that her perceptions must also have included (possibly in a more profound sense) the awareness of the values of courtesy and of kindness. After all not every young woman would have behaved in this irrational (!) manner. Surely if we nod understandingly at her action, it is not because we accept it 'just as it stands' but because we recognise those other ends, those perceptions and values other than immediate ones, according to which we are at times impelled to act, sometimes at considerable cost in terms of pleasure and comfort. To invoke these as counterexamples to the rationality principle is to make the task of explaining human action a gratuitously cynical affair.

I have been trying to show that on their understanding of the rationality principle—which I hasten to add find unobjectionable per se—neither Popper nor Watkins has or can produce a real counterexample to rational action. For any non-mechanical explanation of human action must essentially involve rationalising it in their sense. The point is driven home somewhat more forcefully when Popper ‘shows’ how Freud’s psychoanalytic theory, far from being a theory about the irrational, really reveals the inherent rationality of the psychotic’s actions. For, Popper argues, given *his* assumptions, knowledge, aims, etc., the psychotic’s actions are quite appropriate to his situation. Now it is well-known that mentally sick people are capable of very rigorous reasoning; it is quite often just their premises that are way out. They are also perfectly capable of acting consistently with their ‘beliefs’. But can these actions be labelled ‘rational’ in any non-explanatory sense? I do not wish to be dogmatic here; still it is surely worth pointing out that psycho-analysis as a theory was offered by Freud to make psychotic actions intelligible, not to demonstrate that they are not really psychotic. What Popper really demonstrates is that RP is of the very essence of the explanation of action.

Enough has now been said to show that the Popperian analysis is not free of considerable confusion and that in any explanatory context the principle that men act appropriately to the situation as they see it does not appear to be synthetic in nature. This point has indeed independently been argued by Donagan who, commenting on Watkins’ IRP, says :

‘The principle of Imperfect Rationality presupposes nothing that is not analytic. It is therefore both true and logically redundant.’²⁸

On Donagan’s analysis, the acceptance of a certain practical conclusion on the basis of a situational picture and the apparatus for dealing with it *entails* that the agent perform or attempt to perform a certain act. But this is an arguable point. Certainly it is not immediately self-evident that performing an action is related to intending to perform that action in precisely the same manner as say, walking one mile towards home is related to walking two miles towards home. In other words,

that it is a matter of mere conceptual unravelling. Consistent with his analysis of IRP as logically redundant, Donagan claims that 'an historian neither requires a methodological principle of Imperfect Rationality nor presupposes a synthetic principle to the effect that unless prevented by physical causes, agents act, or attempt to act in accordance with their decision schemes.'⁹ But this again is misleading if it means that the notion of acting appropriately to a situation has no role to play in the explanation of action. Can we then steer clean between the Scylla of Popper's (and Watkins') indispensable falsehood and the Charybdis of Donagan's redundant truth?

We do appear to have reached an impasse. Certainly the devices used by the hypothetico-deductivists to accommodate the notion of rational action (in their special sense of 'rational') in their model of explanation are nothing if not Procrustean. An examination of these strongly suggests the need for an alternative analysis of the explanation of human action. Is there such an alternative? I believe there is and one incidentally that illuminates the very features that Popper attributes to RP though somewhat unconvincingly on his own analysis. This is to recognise the relevance here of the notion of practical inference as opposed to, or at least independent of, the well established concept of theoretical and formal logic. In this inferential framework I suggest that RP/IRP must be regarded as a prime rule of practical inference in social scientific explanation. To regard it in this way would be to see for instance the truth of Popper's statement that it is the animating principle of any model; it would also show that the question of its empirical truth or falsity is invalid and *co-ipso* the question of its analytic or synthetic nature. It would clearly not be dispensable in explanation though it would be logically redundant as a premise. Also according to at least one important school in the philosophy of science, it would still be comparable to the laws of nature. I refer of course to Instrumentalism that sees the latter as rules, or inference tickets, that enable us to make conceptual connections between one set of phenomena and another.¹⁰ What I am suggesting is that the rationality principle operates in precisely this way. As a rule it *joins* the scientist to infer from

the premise that X has a set of aims A and makes a situational appraisal S, that X acts appropriately to A and S. Watkins argues that since there is a logical gap between an appraisal and an action a synthetic principle is required to bridge it. Donagan argues that since the two are analytically related the principle can be dropped. But this is of course because both are working in the framework of formal logic which I am suggesting is not adequate to the explanation of human action.

Would the notion of situational logic have to be thrown out under the new dispensation? Not at all; RP which I would like to be allowed to rechristen as the Rule of Appropriate Action — RAA — is the logic of a situational logic model, and thus is even more appropriately viewed as a rule of inference. First, like all rules, it admits of no exceptions (which I have tried to show is the case anyway with the Popper/Watkins principles); at most there will be cases of failure of its application and consequently of explanation. In other words, to say that an action remains unexplained is to say that RAA could not be applied to the situation in which it was performed or that one could not discover the logic of the situation. Second, this interpretation, or rather modification of Popper's substantive notion of rationality as RAA, also provides a much needed rationale for various stipulations made by him: to regard it as unfalsifiable, as a zero-principle, almost empty, etc., which, on his 'empirical conjecture' view, is so unsatisfactory.

I will end by saying something about the other more primary sense of rationality from which the present one must be clearly distinguished. That is an evaluative sense in which we employ criteria and standards of judgement to decide whether actions are rational or not. It is in that sense that we may be inclined to label the practice of witchcraft irrational, that of science rational and so on. It is clearly not an explanatory sense since it does not enable us to understand why either science or witchcraft is practised. I say it is primary because clearly the notion 'rational from X's point of view' is parasitic on 'rational'.

Department of Humanities
and Social Sciences

Mohini Mullick

I. I. T.
KANPUR.

NOTES

1. Popper, K. R. 'La Rationalite et le statut du principe de rationalite' in *Les Fondements Philosophiques des Systemes Economiques*, 1967. All references to Popper's views are from an unpublished translated version of this paper. Hence there are no footnotes.
2. Watkins, J. W. N. 'Imperfect Rationality' in *Explanation in the Behavioural Sciences* ed. Borger and Cioffi 1970.
3. Watkins J. W. N. op. cit. p. 173.
4. Watkins J. W. N. op. cit. p. 167.
5. Jarvie, I. C. *Concepts and Society* p. 38.
6. Watkins, J. W. N. op. cit. p. 230.
7. *Ibid.*, p. 216.
8. Donagan, A. "Comment of Watkins' 'Imperfect Rationality'" in Borger and Cioffi eds. op. cit. p. 226.
9. *Ibid.*
10. I think my interpretation (rather than Popper's) receives support from the following statement made by Jarvie : "The analogy between the rationality of actions and symmetry in nature may not be close, but their roles as standards of understandability are..." 'Concepts and Society', p. 38. Rules rather than premises set standards.

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