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Actions: Their Identification And Explanation An Essay In The Philosophy Of Action And The Epistemology Of The Social Sciences

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ACTIONS: THEIR IDENTIFICATION AND EXPLANATION

An Essay in the Philosophy of Action,
and the Epistemology of the Social Sciences

by

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Submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

Faculty of Graduate Studies
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1975

ABSTRACT

Although few would deny that social scientists seek and obtain explanations, how they accomplish this is the object of an ongoing controversy. However, the social sciences are ultimately concerned with the behaviour of men as individuals and as a group, so that the explanations which they provide must, in the final analysis, be explanations of human action. The dispute might then be represented as a disagreement over the logical form of action-explanations. Participants would fall into one of two camps: (a) those who regard such explanations as being of the same form as those of natural science, i.e., as being of the covering-law model, and (b) those who deny this. The position which I shall defend in this essay might be classified among the former. But, while the question continues to generate lusty debate, the issues in contention are far broader than is generally recognized. For, our conception of (scientific) explanation and of science itself, as well as the nature of social science and its relation to the natural sciences will be determined by our answer. It is then with an investigation of the broader issues underlying this debate that I begin my discussion.

By demonstrating the arguments intended to show that action-explanation could not be formally the same as

explanation in natural science to be fallacious, I am able to remove the standard a priori objections to my thesis. While those who have maintained action-explanation to be structurally identical to other kinds of explanation have, by and large, failed to accommodate the peculiarities of such explanations, these omissions can be corrected without compromising their position. I endeavour to accomplish this by developing a general account of action-explanation which, while it avoids the deficiencies of its rivals and accommodates all their insights, represents such explanations as being of the covering-law model.

To this end, I begin with an analysis of rival claims, that is, with a critical examination of the thesis that action-explanations are not covering-law. Its adherents must either maintain that (i) these explanations involve no general assertions whatsoever, or that (ii) while they involve such statements, these generalizations are normative rather than the descriptive laws required for covering-law explanation. Both of these alternatives will be shown to be unsatisfactory. They do, nevertheless, offer certain insights with respect to human action and its explanation. By drawing out these insights, I am able to develop my position. And, on this basis, I then construct a covering-law model of action-explanation and hence, of explanation in social science, which avoids the difficulties customarily associated with such an analysis.

I next turn to certain objections that may be advanced

against my position and show that they do not, in fact, threaten my programme. Indeed, they might well serve as a basis for its corroboration. By eliciting further consequences of my position, I am then able to show that it provides us with the best available account of all the relevant data. In this way, I demonstrate its theoretical preferability.

If one is to explain an event, he must succeed in its identification; an answer to 'Why?' presupposes an answer to 'What?' And this would be true of actions as well. With it, however, we introduce a new set of problems. For an adequate analysis of action-explanation would then presuppose an adequate account of action-identification. And my position might be shown to satisfy this requirement whereas those of my rivals do not. This would constitute a further vindication of my programme. My account of how human action is explained enables me to construct an intuitively acceptable analysis of how such phenomena are identified. Through the critical appraisal of rival positions, I then develop a general theory of action-identification as well as action-explanation which not only coincides with the intuitions of common men, but also with the methods of scientists.

DEDICATION

To my wife, Shirley,

- the other half of the team.

b.

ACKNOWLEDGEMENTS

I wish to thank Ausonio Marras for all his help as teacher, advisor, and friend, and my typist, Mrs. Jean Weick, for a marvelous job against heavy odds.

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"It is an acknowledged truth (in philosophy that a just theory will always be confirmed by experiment. Yet so much friction, and so many minute circumstances occur in practice, which it is next to impossible for the most enlarged and penetrating mind to foresee, that on few subjects can any theory be pronounced just, till all the arguments against it have been maturely weighed and clearly and consistently refuted."

Thomas Robert Malthus

An Essay on
The Principle of Population

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CHAPTER ONE

Science, Social Science, and Scientific Explanation

To maintain that the social sciences are indeed sciences might at first seem platitudinous. Yet, this contention has not gone unchallenged.¹ For there are still those who claim that "the idea of a science of man or society is untenable"² and "set out to demonstrate the impossibility of a genuine science of society".³ Contrary to first impressions, the issue is not one which can be settled by an appeal to the law of identity. Logic alone cannot help us determine whether those disciplines now classified as social sciences are truly sciences or not. To resolve the question, we must first obtain criteria by means of which the distinction between scientific and nonscientific pursuits might be clearly drawn; we must then reappraise those activities now recognized as social sciences to determine whether they actually satisfy these conditions. On this basis, we might assume that the matter will be finally settled. And we might assume, in addition, that by such a standard at least some of the social sciences will be seen as scientific endeavours. But even when this is accomplished, our task is still only half done. For, having determined those respects in virtue of which a social science merits

recognition as a science, we would then determine those in virtue of which it is as a social rather than a natural science. It must describe both the genus and the d science. Any discussion which could not describe these features would not provide an adequate definition of social science.

Now, it has been generally acknowledged that scientific research in its various fields is not to go beyond the mere description of a matter by providing explanations of what it investigates.⁴

"The distinctive aim of the scientific method," as Mill has been told, "is to provide...explanations".⁵ In other words, if it provides, or endeavours to provide, explanations of a particular pursuit is regarded as a social science. A science is then commonly recognized as a science which provides, or endeavours to provide, explanations of phenomena falling within a particular field. It is also agreed that "explanations are answers to questions 'Why?'".⁶ But here the confusion arises. Questions of this sort might elicit a variety of responses, not all of which merit recognition. In order to determine when an explanation is required, one would then be required to distinguish between such why-questions which constitute adequate explanations. In respect to this distinction, however, there is a conflicting opinion. An assortment of

for the identification of explanations have been suggested. And according as to which of these one accepts, his conception of explanation, and ultimately of science as a whole, will be determined. It is therefore essential to any inquiry into the sciences that the criterion by which adequate explanations - answers to our why-questions - be established.

Of the diverse criteria which have been offered, the most celebrated, if not most widely accepted, is the one which has been entitled the covering-law model of explanation.

According to this account,

the explanation of a finding...is the process of showing that the finding follows as a logical conclusion, as a deduction, from one or more general propositions under specified given conditions.

And, although not entirely free of difficulty,⁸ it would seem to provide the best general description of how scientific explanations are constructed. As described by the covering-law model, a complete explanation consists of two parts:

(i) a statement describing the event to be explained, which we might henceforth refer to as the explanandum, and (ii) a set of statements, the explanans, offered in explanation of that event. The explanation succeeds, i.e., the occurrence in question is explained, when the explanans consists of at least one empirical law and one or more true, singular statements describing the initial conditions, and where the explanandum follows deductively from this set of statements.⁹

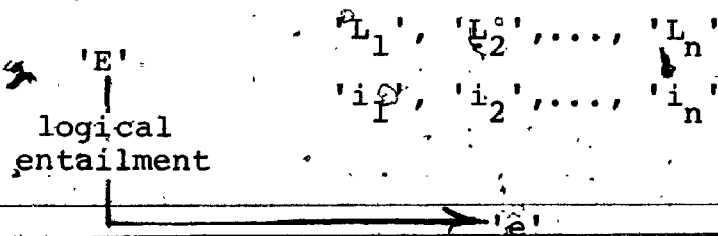
Should any of these conditions be unsatisfied, it is main-

tained, the phenomenon in question is not explained. Where 'E' denotes the explanans and 'e' the explanandum, the covering-law model of explanation may then be stated as the thesis that

An event, e, is explained if, and only if,

- (a) 'E' contains one or more empirical laws, 'L₁', 'L₂', ..., 'L_n', and
- (b) 'E' contains one or more true, singular statements of initial conditions, 'i₁', 'i₂', ..., 'i_n', and
- (c) 'E' logically entails 'e' which describes the event, e, to be explained.

And exponents of this analysis maintain that it provides the essential conditions, both necessary and sufficient, by means of which an adequate explanation might be identified. This model of explanation might then be schematically represented as follows:



According to this model, the explanation as a whole consists of both 'E' and 'e' and takes the form of a sound deductive argument.¹⁰

Explanations, as described above, must contain at least one general law which, in conjunction with the statements of initial conditions, logically entail the explanandum. However, an empirical law might take either one of two forms:

it may be a deterministic or 'causal' law¹¹ which takes the form of a universal conditional such as

All copper objects expand when heated -
 $(x) [(Cx \cdot Hx) \supset Ex]$,¹²

or a probabilistic law, like

One who consumes sugar is likely to suffer from tooth decay -

$$p(D, S) = r.$$

And the general characteristics of an explanation will differ according as to which sort of law it contains, although both kinds may occur in covering-law explanations. The covering-law thesis might then be said to subdivide "explanation into two classes: the 'deductive-nomological'...and the 'inductive-probabilistic'".¹³ Where the explanans contains only deterministic laws, the explanation would be of the deductive-nomological (D-N) model; where it contains a probabilistic law, it would be of the inductive-probabilistic or inductive-statistical (I-S) model. Both of these models will then be regarded as instances of the covering-law model of explanation.

Covering-law explanations must then contain empirical laws and their explanans must logically entail their explananda. Following Alan Donagan¹⁴, we might refer to these as (i) the covering-law condition, and (ii) the deductive condition respectively. Now, it might be observed that it is the inclusion of laws in the explanans of such explanations, i.e., the satisfaction of the first of these

conditions, which enables them to satisfy the second condition. That is, in order that there be a logical entailment between the explanans and the explananda of covering-law explanations, the former must contain at least one general law. For, even if the assertions offered in explanation of an event entailed a statement describing that event, if laws were not included among the explanatory statements, they would not constitute a (covering-law) explanans. And where we have no explanans, there can be no entailment between explanans and explanandum.

It has thus been maintained that, if the deductive condition is satisfied, the covering-law condition must be as well;

fulfillment of the latter requirement is necessary for fulfillment of the former.¹⁵ And, while some still argue to the contrary,¹⁶ this is generally assumed to be the case.

Establishing that a particular argument does not, or could not, satisfy the covering-law condition would then represent the strongest demonstration that it was not a covering-law explanation. For, it could then satisfy neither of the conditions governing this model. And it is for this reason

that those who would deny that explanations provided by the social sciences are of this form attempt to establish that such explanations do not and indeed, could not, contain empirical laws. The dispute as to whether the social sciences actually provide explanations of phenomena, i.e., whether they can be properly considered scientific, and, if they do, how their explanations might be identified, would then turn upon whether the explanations which they offer

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satisfy the first of these requirements. To counter a denial, one would be obliged to show that the social sciences actually explain phenomena in conformity with the covering-law condition.

Few would deny that the sciences (endeavour to) provide explanations.¹⁷ Moreover, it is generally agreed "that natural events may be explained by subsuming them under empirical laws",¹⁸ i.e., that explanations in the natural sciences take the form described above. With respect to explanation in the social sciences, however, consensus fails. Here, one might take any of three different positions:

(i) He might maintain that "all...sciences make use of the same method, whether they are natural sciences or social sciences".¹⁹ Exponents of this view, which we shall call regulism, would contend that, insofar as the social sciences explain (or endeavour to explain) phenomena, they, like the natural sciences, do so by means of covering-law explanations. Indeed, according to them in order that an argument be recognized as an explanation at all, it must be of this form. If the social sciences are then to explain (or endeavour to explain) phenomena and thus, merit recognition as sciences, they must provide (or endeavour to provide) covering-law explanations.

While many have subscribed to this view, others have protested that "the notion of a human society involves a scheme of concepts which is logically incompatible with the kind of explanation offered in the natural sciences".²⁰

They argue that, (ii) while the social sciences explain phenomena, they do not, and could not, do so in the same way as do the natural sciences. Although they agree that the covering-law model provides an adequate representation of explanation in the natural sciences, they deny that this model accommodates explanations as they occur in the social sciences. According to them, in the social sciences, explanation must be of a fundamentally different type. And they then endeavour to reconstruct this alternative model of scientific explanation. Henceforth, I shall refer to this doctrine as anti-regulism.

As a rule, those who contend such issues will take one of these alternatives. But there remains yet another position which might be mentioned, if only to be dismissed; that is, (iii) one might maintain, with the anti-regulists, that the social sciences do not (endeavour to) explain phenomena by providing covering-law explanations, while agreeing with the regulists that all adequate explanations are of this form. This would, of course, amount to denying that the social sciences provide (or endeavour to provide), explanations. Having recognized "explanation to be one of the aims of any science",²¹ however, those who adopt this position, which I shall call social skepticism, are thereby committed to deny that those disciplines which we presently regard as social sciences are truly scientific.

Those who believe explanation to be formally invariant, i.e., that all explanations must be of essentially the same

logical structure and that the structure which they assume is the one described by the covering-law model, would be obliged to espouse either regulism or social skepticism. In the light of recent advances, however, the latter has fallen into general disrepute. For, while perhaps not as dramatic as those of the physicist, the contributions of psychologists, sociologists, economists, and political scientists must be acknowledged. They too have influenced our understanding of the world in which we live; the fruits of their research must be included in our general store of knowledge.

"That the sciences of man...are in their infancy"²² is almost a cliché. Nevertheless, even in their present inchoate state, they have profoundly altered our perspectives. Few would deny that, through their mediation, we now enjoy a far better appreciation of 'human facts', i.e., the behaviour of men and of societies, than did our ancestors. And this alone would seem to be sufficient to justify their recognition as sciences. Moreover, both the explanation and the prediction of such 'human facts' are commonplace. That we are able to understand and foretell, with considerable accuracy, much that men do is a matter of common knowledge. And such facts too are events in the world. Judging from their work, social scientists endeavour to explain and predict phenomena of this sort, and frequently succeed in doing so. But, if social scientists actually provide (or endeavour to provide) us with explanations and predictions of such occurrences - as all the

evidence indicates - to deny that the fruits of their labour merit recognition as adequate (scientific) explanations and predictions merely because they are not of the same form as are those of the natural sciences²³ would amount to an ad hoc restriction of our notions of explanation, prediction, and science itself. Neither common usage nor scientific practice would support such measures. Their adoption would be nothing short of interpreting 'explanation' and 'science' so as to render them intensionally equivalent to 'covering-law explanation' and 'natural science' respectively. And certainly, if this is what he means by these expressions, we could hardly deny the social skeptic's thesis. But the price of such a defense is trivialization. On this basis, anti-regulism would, of course, be false - indeed, necessarily so. However, this is unlikely to trouble its adherents. For one could hardly expect to refute his adversaries by stipulation. And this is essentially what such a defense would amount to. Yet, it seems that social skepticism could only be sustained on this basis. For this reason, few have taken it seriously. Even if it were established that the covering-law model could not serve the social sciences, rather than deny that they succeed in explaining, in view of the evidence it seems eminently more reasonable to assume that explanations take different forms. Social skepticism, it would then appear, might be discarded as a viable alternative. We might therefore conclude that the fundamental question "is not whether a science of behaviour is possible,"

but rather, which direction should we proceed in order to develop such a science".²⁴

This would leave us with two alternative views of social science and the explanations which it provides, viz., the regulist and the anti-regulist. Both would acknowledge that disciplines so recognized provide explanations and that, on the strength of this, they merit recognition as sciences. We might assume, in addition, that both would admit explanation in the natural sciences to be adequately represented by the covering-law model. Disagreement only arises with respect to whether this model can also accommodate the explanations which are obtained in the social sciences. For the regulist maintains that all explanations and hence, those provided by the social sciences, take the form of covering-law explanations; the anti-regulist, on the other hand, argues that, in social science, we find explanations which could not satisfy the conditions of the covering-law model and thus, some explanations are not covering-law explanations. Their disagreement would then concern the general hypothesis

All explanations take the form represented by the covering-law model,

which is accepted by regulists and denied by anti-regulists. But, since both would admit that, in the natural sciences, explanations take the covering-law form, the issue comes to rest squarely upon the social sciences. Anti-regulists then attempt to refute the regulistic hypothesis by establishing

that

Explanations in social science are not of the covering-law model.

Thus, the controversy emerges as one which concerns the formal characteristics of explanation in the social sciences.

But this is only the tip of the iceberg. For, underlying this disagreement is one which is far more extensive. This becomes evident when we recall that our discussion concerns the criteria by which explanations, as they are obtained in the sciences, are to be identified. According as to one's opinions on such matters, what he accepts as an explanation will be determined. But, as stated earlier, one's conception of science as a whole, i.e., what he recognizes as a science, will depend upon his notion of explanation. Thus, although discussion of these alternatives is customarily restricted to an examination of their competing claims with respect to social science and how explanation is therein obtained, the issues which it raises extend far beyond these limits. And, as with all fundamental questions, its answer would seem to lie just beyond our finger-tips, tantalizing us to further efforts while always evading our grasp.

Now, it would appear that the resolution of this controversy might be found in the methods of practitioners. That is, by an empirical study of the explanations which social scientists, qua social scientists, provide, we might determine their formal characteristics and thereby

confirm one of these alternatives while disconfirming the other. Unfortunately, the matter does not allow for so neat a solution. For, since the dispute concerns the criteria by which explanations, and particularly those obtained in the social sciences, are identified, what one accepts as an explanation will depend upon his prior decision as to what characteristics something must have in order that it be correctly identified as an explanation. Thus, according as to whether one espouses a regulistic or anti-regulistic position, he might select quite different things from the works of social scientists as examples of explanation. When the anti-regulist cites a particular argument in rebuttal of the regulistic hypothesis, the regulist might well respond by denying that it is, in fact, an (adequate) explanation and hence, a counter-example to his claim. Similarly, should a regulist discover clear examples of covering-law explanations amidst the work of social scientists, the anti-regulist could maintain that, when constructing these arguments, the social scientists were not acting in their capacity as social scientists, i.e., that while these are indeed explanations, they do not constitute a proper part of social science. But even where there is agreement with respect to a particular argument, i.e., where both the regulist and anti-regulist acknowledge it as an explanation of social science, what characteristics they attribute to it will depend upon how they identify explanations. One and the same set of social scientific arguments may be recognized as explanations by

two (or more) quite different criteria. Which features one attributes to these arguments will depend upon the criterion by means of which he identified it as an explanation. Thus, one might always claim that the explicit statements which social scientists offer in explanation of phenomena must be supplemented with tacit assumptions in order to accomplish this task, i.e., that these arguments are, in fact, enthymemes, and that only when these implicit assumptions are identified will the formal structure of such explanations be apparent. And both regulists and anti-regulists have acknowledged that the explicit explanations of social scientists are incomplete in precisely this way. But how they are then completed, i.e., what implicit assumptions are thought to accompany these explicit assertions so as to render the explanation complete, will depend upon what one believes to be the essential structure of explanation. And one's opinion here will determine whether he adopts a regulistic or anti-regulistic position. Thus, the form which is attributed to explanations derived from social science will depend upon which of these alternatives is adopted. Since which arguments of social scientists are identified as explanations and what characteristics are attributed to those arguments will depend upon whether a regulistic or anti-regulistic criterion of explanation is adopted, our choice of criteria could never be settled by an appeal to those arguments. While it is evident that social scientists provide explanations, it would therefore

be naïve to attempt to resolve this controversy by means of an examination of their explanations.²⁵

Since a direct appeal to the explanations provided by social scientists could not settle the matter, a resolution, if such there be,²⁶ must be sought elsewhere. That is, the choice between regulism and anti-regulism must be made upon some other basis. Now, with the former, viz., regulism, we would seem to obtain a clear criterion by means of which scientific explanation and hence, science itself, might be identified. On this basis, (adequate) explanations might be differentiated from those responses which fail to provide (adequate) answers to our why-questions. Moreover, since a particular pursuit is identified as a science insofar as it provides (or endeavours to provide) explanations of phenomena, this would enable us to distinguish clearly sciences from nonscientific pursuits. With this in hand, we might then fulfill the first of our tasks, viz., clearly determine those respects in which a social science merits recognition as a science. And this would legislate in favour of its acceptance.

As regulism is usually adopted, however, the second requirement of our analysis, viz., determining those respects in which a social science differs from a natural science, is not only unsatisfied, but is quite unsatisfiable. For, those who have subscribed to it have customarily argued for the "derivability of all scientific laws from the laws of physics".²⁷ The laws which occur in the

explanations of social science would be the equivalents of the laws provided by natural science. Nothing which was not treated within the conditions constructed with the aid of such laws could explain the same phenomena as did the natural sciences do so in precisely the same way. Insofar as the social sciences could be regarded as sciences in the same matter and their method would be that of the natural sciences specifically physics. As sciences, the social sciences would then have neither a unique subject matter nor a unique method. But there would then be absolute grounds for distinguishing it from natural science. The distinction could be maintained, i.e., the social sciences could not be identified with the natural sciences; they would not be sciences at all; for, without laws, they could not provide explanations of any amount to denying that there was a distinction between the social and the natural sciences. Indeed, it is short of saying that the social sciences, like the natural sciences, were not scientific. In these areas only acts as a scientist, and explains phenomena, insofar as he acts as a natural scientist, insofar as he employs the laws and methods of natural science to explain phenomena investigated by natural scientists. And on this basis, regulists in the social sciences "can, at least in principle, be transformed into a natural science".²⁸ Those who t

would then maintain that

Insofar as the social sciences explain phenomena, their explanations are logically equivalent to the explanations of natural science,

a contention which I shall henceforth refer to as the thesis of traditional regulism. Since its supporters would maintain that the explanations of natural science are covering-law explanations, it would follow that they would accept regulism in the sense specified earlier.

Yet, this is essentially the position adopted by social skeptics and it is subject to many of the same objections.

Like its predecessor, this doctrine would maintain that only the natural sciences provide us with 'explanations' and thereby merit recognition as sciences. While a social scientist may use explanations derived from the natural sciences in his work, he acts as a scientist only insofar as he does so. Thus, only where a social science provides us with explanations derived from natural science and hence, functions as a natural science, is it truly scientific. But this is tantamount to saying that social science, per se, is not science at all. And objections to this thesis have come from various quarters. In the first place, the indisputable success which social scientists have had in the explanation and prediction of human and societal behaviour coupled with the persistent failure of those who would attempt to show these to be derivable from the natural sciences has left their thesis with little support. Moreover, logic itself

would seem to preclude such a reduction. Thus, the plausibility of this position has been largely eroded.

With regulism, we obtain a precise criterion for the identification of scientific explanation and this, in turn, provides us with a means of differentiating the sciences from other forms of human endeavour. If we were then to adopt this position, we might, on this basis, specify those respects in virtue of which a social science merits recognition as a science and thereby satisfy the initial requirement of our inquiry. In its traditional formulation, however, regulism fails to accommodate the second of these conditions. For, rather than explain how the social sciences are distinguished from the natural sciences, it denies that there is such a distinction. And this response proves unsatisfactory for a variety of reasons. At this point, it is anti-regulism that takes the initiative. For, it appears to succeed where regulism fails. Advocates of this position agree that a science, whether it be natural or social, is identified as such in virtue of its provision of (or efforts to provide) explanations of phenomena. However, according to them, these explanations take different forms. And it is on this basis that we differentiate between natural and social science. Explanations of the covering-law form are appropriate to natural science, and it is in virtue of their providing (or endeavours to provide) explanations of this form that they are identified as natural sciences.

But, in social science "explanation is not and cannot be the type of explanation exhibited in the explanation of natural phenomena".²⁹ For, if it were, the science would be, eo ipso, a natural science. The explanations which we obtain from the social sciences must therefore be fundamentally different from those of the natural sciences, that is, they could not be of the covering-law form. Now, natural scientists may well explain much the same sorts of phenomena as do social scientists, i.e., human behaviour. Thus, both the physiologist and the psychologist may provide us with answers to 'Why did Smith fall down the stairs?' But the answers they offer, i.e., their explanations of the event, would be essentially different. Each would approach it and perceive it from an essentially different perspective,³⁰ and this necessarily gives rise to fundamentally different modes of explanation. To restore the distinction which traditional regulists obliterate, the anti-regulist would then maintain that we must recognize that scientific explanations are of different kinds and that those of the social sciences are formally distinct from the (covering-law) explanations of natural science. In this way, it seems, anti-regulism is able to satisfy both of the requirements for an adequate account of the social sciences.

But this impression is quickly dispelled. For, with the covering-law model, the regulist has provided us with a clear criterion of adequate (scientific) explanation. By

maintaining that there are adequate (scientific) explanations which do not take this form, the anti-regulist abandons this criterion. Although perhaps the conditions governing this model continue to be regarded as sufficient, they are no longer considered necessary for adequate explanation. In that case, however, he would be obliged to provide an alternative. That is, if he is to justify his claim, he must tell us how adequate (scientific) explanations are to be identified, i.e., what conditions any argument must satisfy in order that it be accepted as an adequate explanation. Yet, most of those who espouse this position would seem to be quite oblivious to this challenge, and those who have attempted to meet it have made little progress. But, without such criteria, one has no grounds for accepting any argument, or argument-form (model), over any other, as representing adequate explanation. Our recognition of explanations would then be rendered completely arbitrary. And anti-regulists would be unable to justify their acceptance of any explanatory model. Without knowledge of the conditions which adequate explanations must satisfy, there is no way to identify such explanations and the notion is left in obscurity. But this shadow must fall across the whole of science. For, as we have seen,

for an enterprise to be characterized as scientific it must have as its purpose the explanation...of phenomena within its subject matter domain.³¹

Having no criterion by which to identify explanation, however, the anti-regulist would be unable to determine when a particular pursuit had this as its objective and hence, merited recognition as a science, and when it did not. He would then have no way of determining what conditions an activity must satisfy in order that it be recognized as a science. With this, the distinction between scientific and nonscientific endeavours is obliterated. Thus, the manner in which anti-regulism attempts to preserve the distinction between the social and the natural sciences, thereby satisfying the second requirement for an adequate account of social science, would result in its failure to satisfy the first of these requirements, viz., to determine those respects in which a social science merits recognition as a science. And this failure is sufficient to vitiate the entire programme.

As traditionally adopted, regulism preserves the social sciences as sciences, but at the price of denying any distinction between them and the natural sciences. Anti-regulism, on the other hand, preserves this distinction, but only by casting doubt upon the scientific status of social science. Neither would then satisfy the conditions for an adequate analysis of social science, so that neither could serve as the basis for such an account. Now, underlying both of these positions is the assumption that the essential task of science is explanation of phenomena and that only insofar as an activity has this as its objective is it to be

recognized as a science. Thus, in order that the social sciences be regarded as sciences, they too must be seen to share in this goal. And both would agree that the social sciences have this objective and therefore merit such recognition. When it comes to distinguishing the social from the natural sciences, however, certain difficulties emerge. For, it would appear that a mere difference in their subject matter, i.e., the fact that they investigate different kinds of phenomena, could not sustain this distinction. It is, after all, on this basis that we distinguish particular scientific disciplines among both the natural and the social sciences. Thus, the distinctions between chemistry and physics, or anthropology and psychology rest upon the fact that the members of these sets investigate different kinds of phenomena, although both of the former are natural sciences while both of the latter are social sciences. Moreover, it would appear that both natural and social science might investigate essentially the same kind of phenomena, i.e., human behaviour, while still remaining distinct. In this light, it seems that the difference between these two general areas of scientific inquiry could not be based upon differences in the kinds of phenomena which they investigate. But, if the distinction could not be accounted for in this way, there is only one other basis upon which it might be drawn, namely, a difference in their respective methods. That is, a social science could only be distinguished from a natural science

in virtue of its employment of an essentially different means of achieving its scientific objective. Such reasoning would then lead both the regulist and anti-regulist to conclude that

- (i) If there is an essential distinction between the social sciences and the natural sciences, the social sciences must then explain phenomena in a fundamentally different way than do the natural sciences.

For, it is only this that would permit our differentiating between them.

On this assumption, anti-regulists then maintain that

- (ii) There is an essential distinction between the social sciences and the natural sciences,

from which they conclude that (scientific) explanation will take essentially different forms according as to whether it is provided by a social science or by a natural science. The difference between these two general categories of science, they argue, depends upon the

distinction between two standpoints from which human actions can be studied. When we subsume an action under a law, our approach is that of a spectator of the action: we look for a pattern of regularity in it. But when we give an explanation in terms of the purpose which guided the action, the problem which it was intended to resolve..., we adopt the standpoint from which the action was done: the standpoint of an agent.³²

Explanations of the first type, we obtain from natural science; those of the second, from social science. And it is on this basis that we make the distinction. Yet, this leaves the notion of (scientific) explanation - and with it, science itself - in obscurity. To avert this, regulists contend that explanation is formally invariant throughout the sciences, i.e., that

- (iii) The social sciences and the natural sciences explain phenomena in fundamentally the same way.

And from this, they conclude that there could be no essential difference between these two general categories of science. Any differences that have been observed either result from a misunderstanding, or are irrelevant to their performance as sciences.

Yet, for the reasons cited, neither of these positions is acceptable. Because of the objections levelled against them, both must be rejected. We would then be obliged to maintain that, while the form of explanation is invariant (covering-law) throughout the sciences, there is still an essential difference between the social and the natural sciences. And this amounts to denying the basic assumption of both these positions, viz., the initial premiss (i) of their competing arguments. Satisfaction of the conditions which govern an adequate analysis of social science would compel its abandonment. Now, while its converse, viz.,

- (1) If the social sciences explain phenomena in a fundamentally different way than do the natural sciences, there must then be an essential distinction between the social and the natural sciences,

seems quite incontestable, this assumption itself is not so apparent. There were, however, two factors which dictate its acceptance, namely, (a) those considerations which apparently establish that differences in subject matter are neither necessary nor sufficient to sustain the distinction between the natural and the social sciences, and (b) the fact that the only other basis upon which this distinction could be based is a fundamental difference in their respective modes of explaining phenomena. If we are to challenge this assumption, we must then demonstrate that the considerations which led to its acceptance are mistaken. Now, the second of these factors, viz., that the distinction between the social sciences and the natural sciences must be based upon either differences in their subject matter, or in their manner of explaining, must be granted without cavil. For what other grounds could there be? Our objection must then rest with the former. And it is this one which I shall endeavour to refute. All the social sciences, I maintain, are ultimately concerned with one particular kind of phenomena, viz., human action, which is not amenable to any of the natural sciences. For human action cannot be identified with overt physical behaviour, which I might refer to as mere behaviour. While the natural sciences

might provide us with explanations of the latter, the task of explaining the former falls exclusively upon social science. And it is on this basis that we distinguish between them. Despite this difference, however, the explanations provided within each of these domains are formally the same, i.e., they assume the familiar form of the covering-law model. And in this way, we might satisfy both of the requirements for an adequate account of the social sciences. That is, we might provide a clear criterion of (scientific) explanation, and ultimately of science itself, by means of which the social sciences can be recognized as truly scientific pursuits, while preserving the autonomy of social science. Such a solution will be regulistic insofar as it maintains that explanation in social science, as in natural science, takes the covering-law form, although the trappings traditionally associated with such a view will be abandoned. But before we undertake the construction of this position, we might consider some of the objections, which anti-regulists have raised against it.

FOOTNOTES

- 1 Witness May Brodbeck's remark that "if we grant the premise that the social disciplines are (or more realistically, can be) sciences, then the philosophical problems of social science are those of all sciences". (See, the introduction to Readings in the Philosophy of the Social Sciences, edited by May Brodbeck, pg. 1.) The hypothetical construction suggests that we could and indeed, that some do, deny the antecedent without committing a logical indiscretion. Even more telling is the parenthetical comment (with italics by the author) implying that, while the social sciences may one day achieve the status of sciences, at present it would be 'unrealistic' to recognize them as such and hence, that the social sciences are presently not sciences at all.
- 2 Louch, A.R., Explanation and Human Action, pg. vii.
- 3 Brown, Robert, Explanation in Social Science, pg. 4.
- 4 Hempel, Carl G. and Paul Oppenheim, "Studies in the Logic of Explanation", in Readings in the Philosophy of Science, edited by Baruch A. Brody, pg. 8.
- 5 Nagel, Ernest, The Structure of Science, pg. 15.
- 6 Loc. cit.
- 7 Homans, George C., The Nature of Social Science, pg. 23.
- 8 This model raises a variety of problems which are still in dispute. The literature treating of such issues, already vast, continues to grow. Such questions, however, are somewhat tangent to our discussion so that we shall not pursue them here. Nevertheless, reference to some of the material concerning these problems might be mentioned here. These problems are discussed by Rolf Eberle, David Kaplan, and Richard Montague in "Hempel and Oppenheim on Explanation"; Jaegwon Kim, "On the Logical Conditions of Deductive Explanation"; Charles G. Morgan, "Kim on Deductive Explanation"; Robert Ackermann, "Deductive Scientific Explanation"; David Kaplan, "Explanation Revisited"; A. Omer, "On the D-N Model of Scientific Explanation"; May Brodbeck, "Explanation, Prediction, and 'Imperfect' Knowledge"; Michael Scriven,

"Explanation, Prediction, and Laws", to name but a few. In his doctoral thesis, Explanation in Science, Brian Cupples responds to some of the objections to this model of explanation. And I would adopt essentially the same position.

9 In order that this general characterization of the covering-law model accommodates Inductive-Statistical Explanations as well as Deductive-Nomological Explanations, I shall assume that the explanandum of the former is itself a statement of probability. Thus, an I-S explanation would, on this account, be represented as

$$p(D, S) = r$$

$$\frac{S_i}{p(D_i)} = r$$

It might also be observed that, where the explanandum is itself a law or general statement, the second condition governing this model, viz., that the explanans contain singular statements of initial conditions, is dropped.

10 That is, 'If E then e' must be a logical truth. A more thorough discussion of the covering-law model of scientific explanation is provided by Carl G. Hempel in Aspects of Scientific Explanation and Other Essays in the Philosophy of Science, pp. 229-489.

11 It might be observed that, while all causal laws are of this form, not all laws of this form are causal. Thus, "we can explain without citing causes" (cf. Morton White, Foundations of Historical Knowledge, pg. 20) by invoking noncausal "laws of coexistence in contradistinction to laws of succession" (cf. Hempel, "Aspects of Scientific Explanation", pg. 352). The resultant explanations would not be causal, although they would take the form described above. While we might then say that causal explanations are Deductive-Nomological in form, we must recognize that "D-N explanations are not always causal" (cf. Ibid., pg. 352-3).

12 All statements of this form are not necessarily lawful. For, on this basis, no distinction between accidental and nomological generalizations could be drawn. And where this distinction fails, the notion of scientific explanation is empty. Eberle, Kaplan, Montague (cf. "Hempel and Oppenheim on Explanation"), and Morgan (cf. "Kim on Deductive Explanation"), demonstrate this by their trivialization of the Hempelian account. With his celebrated Grue-Green Problem, Nelson Goodman (cf. Fact, Fiction, and Forecast, pp. 59-83), makes essentially the same point. To preserve this distinction - one upon which explanation depends - the

logical connective which occurs in laws must be recognized to be stronger than the material implication, constant conjunction, of accidental generalization. The formal conditions described here are therefore necessary, but not sufficient, for lawfulness.

13 Donagan, Alan, "The Popper-Hempel Theory Reconsidered", in Philosophical Analysis and History, edited by William H. Dray, pg. 131.

14 See, "The Popper-Hempel Theory Reconsidered", pg. 128.

15 "Historical or psychological explanations obviously do not conform to the deductive pattern for the patent lack of the appropriate lawlike premises...The deductive pattern is appropriate...only if we have the general law." (cf. Israel Scheffler, The Anatomy of Inquiry, pg. 79.)

16 Notably Donagan (cf. "The Popper-Hempel Theory Reconsidered"), who maintains that "it is logically possible to accept the deductive thesis while rejecting the covering-law thesis" (cf. Ibid., pg. 137). But, as will be demonstrated later in this paper, his arguments would not support this contention. He fails to show that "no universal law is needed to link the statements of conditions with the statement of the event to be explained". (Loc. cit.)

17 "The task of explaining the phenomena of the world is, after all, one of the main tasks of science - indeed many writers insist upon its being the primary and definitive task." (cf. Nicholas Rescher, Scientific Explanation, pg. 8)

18 Dray, William H., Laws and Explanation in History, pg. 118. Although precisely how this might be realized still remains in dispute (see footnote 12 above).

19 Popper, Karl G., The Poverty of Historicism, pg. 130.

20 Winch, Peter, The Idea of a Social Science, pg. 72.

21 Homans, op. cit., pg. 6.

22 Taylor, Charles, The Explanation of Behaviour, pg. 4.

23 I am here assuming the Symmetry Thesis. See, Hempel, "Aspects of Scientific Explanation", pp. 367-376, 406-409.

24 Taylor, op. cit., pp. 270-1.

25 Nevertheless, some authors still their account of social science and social sciences on this basis. Robert in Social Science and Gwynn Nettler, two recent examples. However, for those who have been cited, such analyses can only be

26 One who denies that this disagreement be maintaining that we could never explain explanations are covering-law or not, is unable to determine the essential character of explanations. It would, of course, be unable to recognize such explanations. Indeed, we would have absolutely no way of knowing if the social sciences actually endeavor to give (scientific) explanations of phenomena. If the social sciences are truly scientific, their skepticism is quite groundless. As cognitive pursuit of the social sciences and social sciences then be abandoned.

Such a view would be closely related to the social skeptic and might be dismissed on its own grounds. That the social sciences are no less than do the natural sciences no less than do the natural sciences. And while the criteria by which we define scientific explanation is admittedly vague, to claim that no such explanation exists or that it could never be given is indefensible. This is precisely the kind of sophistical analysis. Nor is there any way in which it could not be accomplished. Here, social skepticism is a sterile thesis which neglects the possibility of scientific explanation.

27 Feigl, Herbert, "Unity of Science" in Readings in the Philosophy of Science, Feigl and May Brodbeck, pg. 382.

This thesis, it might be observed, has a venerable history dating back to the time when Descartes maintained that

all the variations in matter,
in its forms, depends on motion.

(Principle XXIII, The Principles of Philosophy)

and that by means of the basic principles of physics one might assume, describe how such

about by motion

all the phenomena of nature may be explained.

(Principle LXIV, The Principles of Philosophy)

In that case, however, all and only physical explanations of phenomena merit recognition as explanations, and only physics is truly scientific.

George Homans (cf. The Nature of Social Science) would appear to break with traditional regulism by maintaining that "the general propositions of all the social sciences are psychological propositions about the behaviour of men" (cf. Ibid., pg. 79). But, when it is recognized that the general propositions which he has in mind are "the propositions of behavioural psychology" (cf. Ibid., pg. 56) of the Skinnerian school, his position is seen to coincide with that of his predecessors.

28 Berlin, Isaiah, "The Concept of Scientific History", Philosophical Analysis and History, edited by William H. Dray, pg. 9.

As expressed here, this thesis is both vague and ambiguous, afflictions from which regulism has frequently suffered. It might be interpreted either as the contention that a social science might be theoretically reduced to a natural science in much the same way as chemistry was reduced to atomic physics, or alternatively as the claim that insofar as social sciences actually succeed in explaining phenomena and hence, merit recognition as sciences, they are logically equivalent to natural science. Of these, the latter is by far the most common and is the interpretation adopted by both the traditional regulists and their critics. That is therefore the sense in which it is intended to be understood in this context.

29 Melden, A.I. Free Action, pg. 89.

30 "The world of natural science is the world of the external observer noting...empirical characteristics...But in human affairs...it would be absurd...to start in this manner...here I am not primarily an external observer." (cf. Berlin, op. cit., pg. 36.)

31 Bescher, Nicholas, Scientific Explanation, pg. 164.

32 Dray, op. cit., pg. 140.

CHAPTER TWO

The Attack upon Regulism

An explanation which takes the covering-law model must satisfy both (i) the covering-law condition, and (ii) the deductive condition. Anti-regulists argue that, in social science, explanation can meet neither of these requirements. And since satisfaction of the former is generally considered to be necessary for satisfaction of the latter, if it were demonstrated that such explanations could not meet the covering-law condition, their thesis would be established. Regulism would then be proven untenable, leaving anti-regulism as the only viable alternative. For this reason, those who adopt the latter position have been mainly concerned to show that the explanans of explanations provided by the social sciences do not, and could not, contain laws of the sort required by the covering-law model. This model, they then argue, describes neither actual nor ideal explanations in social science. If social science is to explain phenomena, it must then do so by some other means. And, on this basis, they conclude that social science

gives rise to a unique kind of understanding, or at least to understanding of a very different kind from that afforded by the natural sciences.

and hence, that "social science...is a radically different kind of science from the others".² According to the anti-regulist, our job is then to determine how, in social science, explanation might be achieved, i.e., the logical form which such explanations would take.

Essential to anti-regulism is then the contention that laws of the sort required for the covering-law explanation of phenomena are unattainable in social science. Its adherents argue that, in order that our explanation of a particular event be covering-law, we must know the empirical laws which govern its occurrence. Such laws are obtained by inductively generalizing from observation and, once obtained, they continue to be vulnerable to empirical disconfirmation. They must, in short, "have empirical content, i.e., must be capable, at least in principle, of test by experiment or observation".³ Now, as empirical sciences, the social like the natural sciences are concerned with observable phenomena, i.e., the behaviour of men acting as individuals or as a group;⁴ and human "actions are as much facts in the world as earthquakes or any natural phenomena".⁵ Yet, in order to explain them in a manner appropriate to the social sciences, we "must also deal with the motives and purposes behind these actions".⁶ For, "when we speak of actions, we are accounting for the behaviour in terms of the man's desires, intentions, and purposes".⁷ Such phenomena, however, are ~~mentalistic and unavailable for public inspection. Unlike~~

those of the natural scientist, explanations provided by social scientists will then concern the mental states which govern particular pieces of behaviour. And the laws which occur in these explanations must therefore make reference, either explicit or implicit, to such nonphysical occurrences.⁸ But, since mental events are not publically observable, laws making reference to them would not be amenable to empirical test. Such laws would therefore have no empirical content and could not be regarded as empirical. Thus, if the explanations of social science are to take the covering-law form, we would require empirical laws which make reference to mental states. But, by the foregoing argument, there could be no such laws. And on this basis, the anti-regulist concludes that the explanations of social science could not be covering-law.

As was observed, empirical laws are thought to be obtained by means of inductive generalization. Certain kinds of phenomena are repeatedly observed to occur in a particular sequence and, on this basis, we (sometimes) conclude that the relations in which these events stand are nomological. Thus, where events of type B are always seen to follow those of type A and never occur unless preceded by type A events, we (might), on this basis, inductively infer that 'A causes B' is a law of nature.⁹ But, while natural science admits, indeed requires, generalizations of this sort, social science does not. For, insofar as an event is of interest

to social scientists it is "a situation or state of affairs which is unique"¹⁰ and unrepeatable. Insofar as social phenomena are instances of general types, i.e., are repeatable, they might be governed by empirical laws and thus, be explainable on the covering-law model.¹¹ To that extent, an understanding of such occurrences would be provided by natural science. In this respect, however, they are of no concern to social scientists. The behaviour of men and of societies, insofar as they are repeatable and, thus, subject to empirical law, are like any other natural phenomena. Thus, while the 'Black Death', the construction of Notre Dame cathedral, The Great Depression, and the assassination of John F. Kennedy are all phenomena which, in certain respects, are instances of general, repeatable types and may, in those respects, be subject to the general laws of physiology, engineering, physics or what-not, it is precisely in these respects that they are of no concern to social scientists.¹² Social scientists, in contrast, endeavour to understand such phenomena only insofar as they are unique and unrepeatable¹³ and hence, not amenable to inductive generalization. And natural science, with its dependence upon empirical law, could never provide us with understanding of this sort. But, since those aspects of social phenomena which are of interest to social scientists could not be governed by empirical laws, an understanding of them could not depend upon knowledge of such laws, and the

explanations by means of which we obtain this kind of understanding, i.e., the explanations which social scientists endeavour to provide in order that we might understand social phenomena in this particular way, could involve no empirical laws. In that case, however, the explanations of social science could not possibly satisfy the conditions which govern the covering-law model. Explanation in social science must therefore be fundamentally different from explanation in natural science. The research of social scientists begins at the point where that of the natural scientist must end. And it is for this reason that these two areas of scientific inquiry must remain forever distinct.

"Scientific investigation", many contend, "consists in establishing causal sequences".¹⁴ Empirical laws, they maintain, are merely descriptions of these sequences, so that when a scientist states a law, he is merely describing a particular causal relation between different kinds of phenomena. Explanations involving such laws would then tell why certain events occurred by describing their causes.¹⁵ Here, an understanding of what transpired consists in knowing that events of this kind are causal consequents of certain other phenomena, information obtained through knowledge of the relevant laws, and that those causal prerequisites have been satisfied so that the occurrence of an event of this type is causally determined.¹⁶ Such an understanding would, of course, be provided by covering-law explanations. And,

as many conceive of it, natural science's primary objective is to explain phenomena in this manner.¹⁷ In contrast, when a social scientist endeavours to explain a particular phenomenon, a piece of human behaviour or social event, he is not concerned with causes. His sole objective is to discover the reasons which governed such behaviour, and his explanations are meant to reveal those reasons, the motives and purposes, for which agents behave as they do. Understanding of this sort is obtained when an agent's behaviour is seen in the light of his reasons. And, since one's reasons for acting could not be construed as the cause of his behaviour, a causal explanation of such phenomena would be quite beside the point. Empirical laws could then play no part in such explanations, for

where we are concerned with explanations of human action, there causal factors and causal laws are wholly irrelevant to the understanding we seek.¹⁸

Such explanations must then be fundamentally different from those of natural science and could not therefore be adequately represented by the explanatory model appropriate to natural science, viz., the covering-law model of explanation.

To sustain this objection, however, one must assume that an agent's reason for acting in a particular manner could not be the cause of his behaviour. For, if this were possible, it might still be maintained that there are empirical laws which govern the causal relations between

reasons and actions, and that it is with the aid of these laws that social scientists construct their explanations. While the laws which they employ would be different from those of the natural scientists, one might still argue that social scientists invoke empirical laws in order to explain phenomena and hence, that their explanations are of essentially the same form, viz., covering-law. To forestall this, anti-regulists raise a number of objections to the assimilation of reasons and causes. In the first place, they observe that where a particular event is causally determined and hence, explainable by means of empirical law, if the causal antecedents are satisfied, that event must occur. And where one behaves as a result of such factors "it is as if the man suffers something rather than does something".¹⁹ We would neither hold him responsible (in any of the various senses of that expression) nor evaluate his performance. An agent would have no choice but to behave as those causes dictated; neither decision nor deliberation could assist in determining what he did. Yet, we commonly recognize that people act in quite a different manner. That is, they deliberate about what they will do, come to a decision on the basis of their deliberations, then act upon these decisions. In such cases, reason rather than blind causality is thought to govern their behaviour. Having certain goals, on such occasions an agent is thought to evaluate the various alternatives open to him and, on this

basis, reach a rational decision as to what mode of behaviour is most likely to satisfy these objectives. But even where such a decision has been reached, it does not oblige the agent to behave in any particular manner. For, while reasons may convince, unlike causes they do not compel. When an agent's behaviour is brought about by his reasons for acting, it is always assumed that, even though he acted in this manner for those reasons, he might nevertheless have acted otherwise. He had a choice with respect to what he did. On such occasions, he is regarded as the initiator of his actions and therefore responsible (in all its various senses) for what he did. And it is only when an agent behaves in this manner that an evaluation of his performance would be appropriate. But we ourselves are constantly aware of deliberating and deciding about our behaviour, of having goals which we endeavour to satisfy, and of evaluating our performance on this occasion so that we might improve on the next. We are conscious of being responsible for our behaviour and of assigning such responsibility to others. Yet, all such judgements presuppose that the reasons which govern such behaviour do not causally necessitate its occurrence and hence, that one's reasons for acting could not be regarded as the causes of his behaviour.

Yet such evidence could hardly be considered conclusive. For, it amounts to little more than an argument from popular

opinion. No one would deny that we all make these distinctions. But this is no guarantee that we are correct in doing so, that they are actually there to be made. And the question of whether a person's reasons for acting could be a species of cause concerns the latter. An appeal to common practice could not then resolve it. But anti-regulists have another defense. For they observe that "every effect is a distinct event from its cause";²⁰ causality is a contingent relation between logically independent phenomena. When we consider a person's intentions and the behaviour to which they give rise, however, it would seem that the former could not be identified independently of the latter. For, at least part of what we mean by 'intending to A' is that one having this intention will, ceteris paribus, perform the act of A-ing. Unless one were to behave in this manner where circumstances did not prevent his doing so, he could not be properly said to have this intention. But, since our notion of a reason for acting involves that of the action to which it gives rise,²¹ such phenomena could not be regarded as 'distinct events'. In that case, however, they could stand in no contingent relations to one another and could not therefore be causally related. From this, it would follow that "we could not say that the intention was the causal antecedent of the behaviour".²²

But, it seems that we might, and frequently do, describe our intentions and the actions which they govern in

such a way as to preserve their logical independence. Thus, one's reason for raising his arm might well be his desire to attract the waiter's attention. When described in this way, these phenomena would appear to be logically quite distinct and might well be causally related. It is therefore not at all clear that our reasons and the actions to which they give rise could not be so characterized as to avoid any logical connections between their descriptions. But even if this could not be done, it would still not follow, as anti-regulists assume, that reasons could not be causes. For, only linguistic items can stand in logical relations, and according as to how we choose to describe reasons and actions, i.e., with what linguistic items we choose to designate them, their descriptions will or will not be logically related. Causal relations, in contrast, are relations between states and/or events and remain quite unaffected by the way we describe the relata. If events happen to stand in a causal relation, they will continue to do so regardless of how we describe them and whether the descriptions we choose are logically related or not; if events are not so related, saying will not make it so. Given our present state of knowledge, those involved in cancer research could only describe the object of their investigation as 'the cause of cancer'. But, from the fact that what they seek is presently describable only in terms of its results, one would not infer that whatever it is that

this description denotes could not cause those results. Similarly, it would not follow from the fact that we are now able to identify our intentions only in terms of the actions which they govern, that those intentions could not cause the actions. Words and that which words denote are distinct items; from the fact that our words happen to be related in certain ways, we can validly draw no conclusions with respect to the relations which hold among their referents. Regardless of how we happen to describe them, it is still possible that one's reasons for acting might be the causes of his behaviour. And from this, it would follow that, despite anti-regulist objections, the explanation of human action, and those provided by social science, could still be causal explanations and thus take the form of the covering-law model.

As described above, natural science was said to seek causal explanations of phenomena, and such explanations, it is agreed, would be adequately represented by the covering-law model. Social science, in contrast, was said to explain the behaviour of men and of societies in terms of the reasons which govern such events. If it could then be shown that one's reasons for acting in a particular manner could not be regarded as the causes of his behaviour, it would then follow that the explanations which social scientists seek could not be causal. Anti-regulists then endeavour to provide the required demonstration. But,

although it is usually assumed that this would be sufficient to refute regulism, such proof would not, in fact, have these consequences. For, while the foregoing account of natural science is widely accepted, it involves a fundamental misconception: To say that the sole objective of natural science is the discovery of causes and that all the explanations which it provides are causal is, by no means apparent. Indeed, from all indications, such a claim would appear to be quite mistaken. We might grant that all the explanations of natural scientists require empirical laws, i.e., are covering-law explanations, and that these laws provide descriptions of the nomological relations among phenomena. Yet, when empirical laws were discussed, we were obliged to recognize at least two distinct kinds, viz., deterministic and statistical. And, while the former may describe causal relations among phenomena, the latter could not. According as to whether the laws occurring in a covering-law explanation were deterministic or probabilistic, the explanation was said to be of the Deductive-Nomological or the Inductive-Statistical model. And only Deductive-Nomological explanations could be causal.²³ To show that the explanations of social scientists could not be causal would not then be sufficient to refute regulism. But even if one were to adopt the Einsteinian doctrine that 'God does not play dice with the world' and maintained that probabilistic laws are, in fact, only rough approximations

of, as yet undiscovered, deterministic laws eventually supplant their statistical Inductive-Statistical explanations can be regarded as explanations,²⁴ such a proof would suffice as a refutation of regulism. If all laws are not all causal. Among them, in contradistinction to laws of succession and aid, "we can explain without citing causes containing such noncausal, deterministic Deductive-Nomological and hence, covering laws they would not be causal explanations. Explanations are not always causal".²⁵ It has been proven that the explanations of social phenomena can be causal explanations, one could, nevertheless, try to maintain regulism in some other form.

Now, while the anti-regulist's argument that reasons and actions are not distinct is invariably couched as a proof that explanations of reasons, as they are provided by social laws, are not be causal explanations, its thrust is that if sound, it would effectively preclude explanations involve any empirical laws whatsoever that they could be of the covering-law type. If reasons and actions are not distinct, the latter could stand in no (contingent) relations, much less in nomological ones. In the

could be no relation which might be described by empirical laws, causal or otherwise. When explaining actions in terms of reasons, there would then be no empirical laws to which one might appeal and hence, such explanations could involve no such laws. Thus, while it is generally assumed that this argument is only intended to demonstrate the impossibility of causal explanation in social science, it is, in effect, a refutation of regulism in any of its various forms. But with our rejoinder, these results would appear to have been averted. That is, the preceding response to this argument would establish that, on this basis, the anti-regulist is not justified in claiming that reasons and actions are not independent phenomena and hence, that they could not be related nomologically. In the light of this refutation, one might then continue to hold that, in order that an appeal to one's reasons for acting succeed in explaining his behaviour, it must be mediated by empirical laws, i.e., that such explanations take the covering-law form. By adopting this position, however, one is not thereby committed to the view that these explanations are causal. For, he might well claim that, although nomological, the relation between such phenomena is not a causal relation, but of some other sort. And a good many regulists have, in fact, adopted such a view, arguing that "the explanation of human action is... more appropriately codified... in terms of probabilistic laws".²⁸ Thus, with the foregoing refutation, all the

alternative forms of regulism are restored as viable accounts of the explanations provided by the social sciences.

Having removed this objection, the regulist is immediately confronted with another. For even if actions and the reasons in terms of which social scientists explain them are distinct phenomena so that they might stand in contingent relations, if social science endeavours to explain human behaviour only insofar as it is unique and unrepeatable, any relations in which such occurrences might stand would then be particular, peculiar to the occasion, and hence, not nomological.²⁹ Their occurrence could not then be governed by empirical laws. Or, even if they were nomologically related to other phenomena, since events of this sort would not sustain inductive generalization, we could never discover the laws governing their occurrence. Thus, if such phenomena are explained at all, their explanations could not involve empirical laws. And in either case, it "follows a priori that...it is not possible for the [social scientist] to explain his subject matter by means of covering-laws".³⁰ Those who raise such issues, i.e., that the objects of interest to social scientists are unique and unrepeatable, could, on this basis, argue to either one of two conclusions, namely, either (i) the ontological thesis that because such phenomena are unique and unrepeatable they could not be law-governed, or alternatively (ii) the epistemological thesis that, even though they may be law-governed,

we could never discover the laws governing their occurrence. In either case, it would follow that our explanations of these events could involve no empirical laws and hence, would not be covering-law. While those who attack regulism in this manner rarely state whether their objection rests upon the ontic or the epistemic point, a defense of regulism would be required to answer both.

But without some account of the sense in which human behaviour and social events, insofar as they are of interest to social science, are to be regarded as unique and unrepeatable, the strength of this objection is difficult to determine. And those raising it offer little illumination. Such an evaluation would then require us to determine whether there is any sense in which the subject matter of social science is unique and unrepeatable and, if so, whether this prevents its explanation in accord with the covering-law model. Now, as many have observed,³¹ by the law of identity, "every event is strictly speaking, unique and unrepeatable. For, "every thing is what it is, and not another thing"³² logic alone assures us of that. And this is as true of natural phenomena as it is of human behaviour. On this basis, however, one could distinguish between neither natural and social phenomena, nor between their respective sciences. That human actions, and social events in general, are unique in this sense would not succeed in demonstrating the impossibility of the requisite laws. And

if, despite this fact, we are prepared to "allow that natural events may be explained by subsuming them under empirical laws",³³ this provides us with no reason for denying that social events might be explained in like manner. For, even though a particular occurrence is, as an individual, quite unique and unrepeatable, this in no way precludes its being an instance of a certain general type and, as such, of having predecessors and successors of the same type. Through observation of its predecessors, we might then discover the laws which govern all individuals of this type and which must therefore govern this particular individual. In that case, however, an event's uniqueness would preclude neither its being governed by empirical law, nor our discovery of that fact. However, if it is being maintained that social scientists, qua social scientists, investigate social phenomena only insofar as they are instances of no general types whatsoever, i.e., manifest no general characteristics, and if this is what is intended when such events are said to be unique and unrepeatable, then it is difficult to understand how, under such circumstances, a social science would even be possible. Indeed, to restrict social scientific interest to social phenomena is already to recognize a general classification of its subject matter. 'Phenomena', if such there be, which are unique and unrepeatable in this sense could not even be recognized, much less discussed and explained.³⁴ Thus, by

our first interpretation, all events must be unique; by our second, none could be. And in neither case would an event's being unique and unrepeatable preclude either its being governed by empirical laws, or our discovery of those laws. The regulist would then appear to have little to fear from this quarter.

As we have interpreted it, this objection is no obstacle to regulism. But perhaps on some other interpretation, it might prove more damaging. Yet, what this might be and how it might be obtained remains quite unclear. And until such issues are clarified, the matter rests. However, this argument might be rejected for quite different reasons. For, even if we could obtain an adequate interpretation of 'unique and unrepeatable' such that social events and only social events could be properly so characterized, it would still not follow that this would prevent either their being law-governed or our discovery of these laws. Our demonstration of this might begin with the epistemic issue. Now, those who raise this objection would argue that empirical laws are established by induction from past experience. But, since there could be no previous occurrences of a unique and unrepeatable event, such phenomena could not sustain induction. They then conclude that, if social events are unique and unrepeatable, we could never discover the laws which govern them. Yet, it must be observed that the inductivist account of natural law which is assumed

here has encountered some serious challenges.³⁵ In view of these, it is by no means apparent that any empirical laws are established on this basis. In that case, from the fact that we are unable to observe previous occurrences of a particular type, one could not infer that we could not determine the laws which govern such events. But, even if we were prepared to admit that some empirical laws are obtained by induction from experience, one could not plausibly maintain that all the laws which science requires can be generated by this process. For, while it may be reasonable enough to claim that our experimental laws³⁶ are developed in this manner, maintaining this of theoretical laws would not be. And it seems quite indisputable that we know of such principles and that they are empirical assertions. Theoretical laws, as much as experimental laws, are essential for an empirical science. One who maintains that all empirical laws are obtained by the inductive process would then be guilty of equivocation on 'experimental law' and 'empirical law' which, when exposed, refutes his claim. Some empirical laws, viz., theoretical laws, we must then conclude, are "discovered" although we do not and cannot observe previous occurrences of the type which they govern.³⁷ If unique, unrepeatable phenomena were governed by such laws, it would then still be possible for us to learn of this fact. The uniqueness of social events could not therefore preclude our discovery of the laws.

which govern them. And this would seem to dispose of the epistemological issues raised by this objection.

But is it even conceivable that events which are truly unique and unrepeatable have nomological characteristics, i.e., are law-governed? The very nature of the case would seem to preclude this. For, an empirical law must "satisfy a condition of nonlimited scope".³⁸ And this condition, it would appear, could never be satisfied by assertions concerning unique, unrepeatable phenomena. No statement making reference to such occurrences would then be lawful, and there would then be no laws to be discovered. Even if, by the previous point, we were able to obtain knowledge of laws governing unique events, there could then be no such laws. And once again, it would follow that our explanations of such phenomena could involve no empirical laws. However, this conclusion seems quite unwarranted. For, the mere fact that a particular event - the conditions governing whose occurrence are described by certain principles - happens once and cannot recur would neither establish that the scope of the principles in question is restricted, nor that the principles themselves are not (or, could not be) nomological. Nor would we have any right to conclude, on this basis, that the event so governed was not (or, could not be) subject to empirical laws. Only where a statement of the principle itself entails its restricted application to a particular set of individuals, i.e., where it contains, either explicitly or implicitly, essential occurrences of singular

terms used as names, would we be justified in drawing such conclusions. But, from the fact that a particular social event occurred once and could not recur, i.e., is unique and unrepeatable, there is no reason to assume that all assertions describing the conditions which gave rise to that phenomenon must contain, either overtly or covertly, essential occurrences of such singular terms. It seems quite possible that, given prevailing conditions and the laws of nature, a certain event occurs, but because of conditions subsequent to its occurrence, which are themselves determined by the empirical laws, and those same laws, there could be no recurrence of an event of that kind. We would then have an example of an event which was both unique and unrepeatable. Yet, one is hardly likely to deny that its occurrence was governed by empirical law. On what grounds could one then deny the possibility of such an eventuality? Certainly, nothing in the nature of natural law or unique, unrepeatable events would seem to preclude it.

But here an example might strengthen my case. Let us consider the possibility of the universe's total annihilation.³⁹ While perhaps difficult to imagine, such an occurrence seems at least logically possible. And, if anything is to merit such recognition, it surely must be regarded as unique and unrepeatable. But is it not also possible that a set of theoretical laws would correctly describe the conditions under which this would occur and which, if we

knew them and the prevailing state of the universe, would enable us to predict accurately this ultimate holocaust? I am here not playing prophet. My sole concern is to establish the logical possibility of such an event and such laws, for this is all that would be required to establish that, although unique and unrepeatable, an event may, nevertheless, still be governed by empirical laws, and thereby rebut the point at issue. And this possibility seems quite indisputable. But, having established the possibility of discovering such laws by our earlier argument, we might therefore conclude that, even if the social sciences were exclusively concerned with events which are unique and unrepeatable by some acceptable criterion, it could not be inferred from this that their explanations of such phenomena could involve no empirical laws. Thus, even if social events were proven to be unique and unrepeatable in some acceptable sense, this would leave regulism quite untouched.

Of the three principal objections to regulism, the second and third would then appear to represent no serious threat. But the first still demands our attention. And it is this one which raises the basic issues. To recapitulate, it has been argued that

- (i) The ultimate subject-matter of social scientific inquiry is the behaviour of men as individuals and/or as a group.

and that

- (ii) Such phenomena can only be adequately explained in terms of the reasons, goals and intentions, for which people behave as they do.

But one's reasons for behaving are mental states, so that explanations, as provided by social scientists, must, if they are to be regarded as adequate explanations, make reference to mentalistic occurrences. Thus,

- (iii) In order that the explanations which we obtain from social science be covering-law explanations, they must include empirical laws which make reference to mental events.

Yet, since mentalistic occurrences are not accessible to public inspection, we are told that they could not be empirical phenomena, and the assertions making reference to such states could not be empirical statements. In that case, however,

- (iv) There could be no empirical laws which make reference to mental events.

And from these four assumptions, it would follow that the explanations provided by social scientists could involve no appeal to empirical law and hence, could not be covering-law explanations. If regulism is then to be maintained, at least one must be refuted. And, at one time or other, regulists have tested each of these contentions. Thus, metaphysical holism which maintains "that there are so-called wholes, group entities which have indefinable properties of their own"⁴⁰ might be seen as a denial of the first, viz.,

(i), of these assumptions so as to avoid the conclusion to which it leads. Yet, because of its commitment to emergent properties, such a defense is presently regarded with disfavour. But its dismissal would amount to a tacit acceptance of the initial assumption. The regulist would then be obliged to construct his defense upon the rebuttal of one of those which remain.

As a rule, it is at the third of these assumptions that regulists have directed their primary attack, maintaining that

the laws whose existence is required if reasons are causes of actions do not...deal in the concepts in which rationalization must deal...- the classification may even be neurological, chemical, or physical.⁴¹

Many then argue that, in order to provide explanations, social scientists "resort to general laws established in physics, chemistry, and biology".⁴² Others maintain that "the propositions of behavioural psychology are the general explanatory propositions of social science".⁴³ In either case, the empirical laws which social scientists are alleged to employ in the construction of their explanations could involve no mentalistic concepts and hence, would make no reference to the reasons for which people behave as they do. And those who subscribe to traditional regulism as it was characterized earlier are committed to such a view.

Now, it is apparent that when inquiring as to why someone acted in a particular manner, we are asking "what

explanation. As described by traditional regulists, however, such explanations would involve absolutely no reference to mental states. Their analysis would therefore ignore the essential characteristic of actions, i.e., that which distinguishes them from all other kinds of phenomena. And explanations of this sort could never account for the obvious influence of thought upon action; they could never reveal how a man's goals and desires guide his behaviour. For this reason, explanation, as they describe it, could never adequately represent those provided by the social sciences.

To put the point somewhat differently, it is generally acknowledged that

any rationally acceptable answer to the question 'Why did event X occur?' must offer information which shows that X was to be expected...at least with reasonable probability.⁵⁴

Satisfaction of this requirement, which we might refer to as the condition of rational expectation, has been recognized as necessary for adequate explanation. But, by the foregoing argument, where the event to be explained is a human action, only knowledge of an agent's intentions, i.e., of certain mental states, would provide us with an adequate reason for anticipating its occurrence. Thus, where the event to be explained is an action, only where the explanans makes reference to mental states, i.e., to the goals and intentions of persons, could the explanation satisfy this

reference to reasons, the explanans contains others which deal exclusively in the concepts introduced by the laws occurring therein and these, in conjunction with those laws, entail the explanandum. Thus, the deductive condition might still be satisfied. But, in that case, the statements of initial conditions making reference to reasons would play no part in the deduction. Their occurrence in the explanans of such explanations would then be quite extraneous. Since they make no essential contribution to the explanation, they could not assist in our comprehension of such phenomena. Reference to reasons might then be entirely eliminated from such explanations without loss. A person's mental states, his reasons, intentions, and goals, it must then be concluded, have absolutely no effect upon his behaviour. Reference to such states, that is, the rationalization of behaviour, would make no contribution to our understanding of what they did and would not therefore represent an admissible form of explanation. One who denied the third, (iii), of these assumptions would then be obliged to deny either (a) that the explanations provided by social scientists are covering-law, or (b) that an adequate explanation of human behaviour and social events involves any reference to the reasons people have for their behaviour, i.e., the denial of the second, (ii), of these assumptions. And a regulist would of course be committed to the latter. For, given the deductive condition which governs the

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them employing essentially the same explanatory methods. Now, it is obvious that explanations of this sort make no explicit appeal to empirical laws. Common practice would then appear to belie the regulist thesis. To accommodate it, regulists have argued that, while such explanations make no explicit appeal to empirical laws, their success as explanations depends upon the tacit assumption of such principles. That is, they maintain that, in order for our descriptions of reasons to succeed as explanations of behaviour, they must be accompanied by implicit assumptions. And among these assumptions, they maintain, are empirical laws as well as singular statements which, when explicitly stated, would, in conjunction with the reasons which were offered, in explanation of the phenomenon, be an explanation of the covering-law model. As commonly expressed, the explanation of human behaviour is then "incomplete and... must, in exact speech, be expanded into an explanatory deductive argument".⁴⁵ It is, in effect, an enthymeme, an explanation-sketch which

omits mention of certain laws or particular facts which it tacitly takes for granted, and whose explicit citation would yield a complete deductive-nomological argument.⁴⁶

And it is in this way that regulists customarily defend their claim that, despite appearances to the contrary, such explanations are nevertheless of the covering-law model.

Yet, while traditional regulists have argued that the

rationalizations which we are accustomed to offer in explanation of our behaviour are, in fact, explanation-sketches of the sort described above, it should now be evident that this would be inconsistent with their other commitments. For, one who adopts this position must deny that reference to mental states and hence, to reasons, has any explanatory efficacy whatsoever. That is, he is obliged to maintain that rationalization does absolutely nothing to promote our understanding of behaviour and could not therefore play any part in the explanation of such phenomena. On the other hand, to claim that the reasons which we commonly offer in explanation of behaviour are partial explanations, or explanation-sketches, amounts to an acknowledgement of their explanatory efficacy and would therefore be incompatible with traditional regulism. Its adherents must then deny that reasons play any part in the explanation of behaviour and dismiss our impressions to the contrary as sheer illusion. Yet, this alone would justify our abandonment of that theory. For, all the evidence would indicate that knowing an agent's reasons promotes an understanding of his behaviour and thus merits recognition as being explanatory, whether as a complete explanation or an explanation-sketch. And without good reason for denying the conclusions based upon common experience, they would take precedence over conflicting opinion. But, since the traditional regulist can offer no independent evidence in

support of his claim, this would be sufficient to justify its abandonment.

But traditional regulism confronts an even more telling objection. For, it has been observed, "that physiological happenings are not to be identified with human actions"⁴⁷ that "we can never specify an action exhaustively in terms of movements of the body or within the body".⁴⁸ That is, an action can never be identified with overt, physical behaviour. The same sequence of gestures and/or sounds might manifest any number of different actions, or no action at all. According as to how one chooses to describe those movements, he decides as to whether what occurred was an action or not and, if an action, which one. But since these movements are compatible with any of the descriptions which we might choose, such decisions, i.e., as to whether the occurrence was an action or not and, if so, which action, could not be made on this basis.⁴⁹ A person's performance of physical behaviour would not therefore be sufficient to establish his performance of an action; but neither would it be necessary. For we frequently acknowledge the performance of an action where there was no manifest behaviour whatsoever, e.g., waiting, resting, relaxing, refraining, etc. Actions and mere behaviour, it is then maintained, are quite distinct phenomena; the occurrence of one offers no assurance of the other. And any reason one might have for anticipating one would not be

a reason for expecting the other. But, since physical behaviour is not essential to human action, we must seek the basis for its identification elsewhere. And it has been generally maintained that "it is the intention with which a person acts that provides the criterion of identity of an action",⁵⁰ that "for something to be an action...the agent must not only make the appropriate movements, it must be his intention or purpose to do so".⁵¹ But, since an agent's intentions are mental states, the actions through which they are manifested would then have to be essentially mentalistic phenomena. And this would have to be reflected in their explanations.

The social scientist, however, is not concerned with mere physical movements, for

in social life, it is not what movements are made and utterances delivered that is important, but what the aims and intentions of the actors are in making them.⁵²

Ultimately, it is the actions which people perform, rather than their physical behaviour, that is of interest to social scientists. In virtue of this, it has been argued that the explanations which they provide

must...show the mediation of thought and intention, motives and beliefs...between external stimuli and observed behaviour.⁵³

An argument which does not show this, it has then been maintained, could not explain human action and thus, whatever else it may be, it could not be an adequate social scientific

explanation. As described by traditional regulists, however, such explanations would involve absolutely no reference to mental states. Their analysis would therefore ignore the essential characteristic of actions, i.e., that which distinguishes them from all other kinds of phenomena. And explanations of this sort could never account for the obvious influence of thought upon action; they could never reveal how a man's goals and desires guide his behaviour. For this reason, explanation, as they describe it, could never adequately represent those provided by the social sciences.

To put the point somewhat differently, it is generally acknowledged that

any rationally acceptable answer to the question 'Why did event X occur?' must offer information which shows that X was to be expected...at least with reasonable probability.⁵⁴

Satisfaction of this requirement, which we might refer to as the condition of rational expectation, has been recognized as necessary for adequate explanation. But, by the foregoing argument, where the event to be explained is a human action, only knowledge of an agent's intentions, i.e., of certain mental states, would provide us with an adequate reason for anticipating its occurrence. Thus, where the event to be explained is an action, only where the explanans makes reference to mental states, i.e., to the goals and intentions of persons, could the explanation satisfy this

condition and thereby merit recognition as an adequate explanation. Moreover, since social scientists are ultimately concerned with human actions, their explanations are essentially action-explanations and must therefore make reference to human thought. As they are represented by the traditional regulist, however, these explanations could involve no such appeal. But, in that case, they could provide no basis for the rational expectation of the event to be explained, i.e., they could not satisfy the necessary condition for explanatory adequacy. Social scientific explanations, as described by traditional regulists, would not therefore merit recognition as adequate explanation. That analysis must then be abandoned.

To argue, as traditional regulists might, that while the explanans, as they describe it, does not entail the explanandum, it might nevertheless satisfy the foregoing condition by rendering the event's occurrence 'reasonably probable', would not accommodate this objection. For, it is not that the explanans provides sufficient grounds for the rational expectation of an action that is being denied, but rather that it provides any grounds whatsoever. To sustain traditional regulism, one would then be obliged to deny either (a) that the social sciences are ultimately concerned with human action,⁵⁵ or (b) that a human action is anything over and above sheer physical movement. But while the former misrepresents social science, the latter misrepresents

human action as it is presently recognized.⁵⁶ Neither of these alternatives would then provide the required support. Such considerations, coupled with those of the preceding chapter, have led many to dismiss traditional regulism as an acceptable theory.

Since regulistic attempts to refute any one of the first three anti-regulistic assumptions have met with little success, the defense of this position now rests with the fourth, viz., that

- (iv) There could be no empirical laws which make reference to mental states.

Since all the other premisses of the anti-regulist argument would appear sound, unless this contention can be refuted, regulism must be abandoned. This assumption, it will be recalled, was based upon the observation that mental events are not accessible to public inspection, from which it was concluded that they could not be regarded as empirical phenomena. Assertions which make reference to such occurrences would not then be empirical statements. And it would, of course, follow that there could be no laws of the sort required by a regulistic analysis; such an account would then be demonstrably untenable. But one must now ask whether, on this basis, one would be justified in denying psychological states empirical status, that is, whether the fact that such occurrences are not publicly observable is sufficient to preclude our recognizing assertions which make

reference to such states as empirical statements. Certainly, much of our scientific knowledge, i.e., that which we obtain from scientific theories, is not amenable to public confirmation. Yet, despite this fact, we still consider them to be significant and factual, i.e., empirical statements.⁵⁷ When such assertions are judged to be empirical, we are claiming no more than that they describe actual states-of-affairs, facts in the world, and that, in virtue of those facts, these descriptions are either correct or incorrect, true or false. To deny that a statement is empirical in this sense amounts to saying that it describes nothing whatsoever, that events of the sort to which it allegedly makes reference do not, in fact, occur and hence, that there is no state-of-affairs which either confirms or disconfirms what is being asserted. But how are we to distinguish fact from fancy; the actual from the illusory? Now, if a statement describes real phenomena, facts among the others of which our universe is composed, those facts must exist, be there to be discovered, and it should be possible, at least in principle, to establish the existence of those states-of-affairs which it describes. It must therefore be logically possible to confirm such assertions by appealing to that which they describe. But this requirement might well be satisfied even though we are unable to make the requisite observations. Our statements might well succeed in describing the world, although we are

denied access to the facts which would confirm them, and do not even know how such observations might be made. Whether the requisite states-of-affairs exist and hence, whether it is logically possible to confirm an assertion by appealing to such phenomena is independent of our ability to make such observations and of our knowledge of how they might be made.

From the fact that we are unable to observe the phenomena which are being described, or that we do not know how such phenomena might be observed, it would not then follow that the statements concerned convey no factual information and are not therefore empirical assertions. And, when 'empirical' is understood in this way, the fact that we are unable to test our psychological assertions by observation or experiment would not justify our denying their empirical status.

But when the positivistic doctrine that the meaning of an empirical statement consists in the conditions under which it might be confirmed, i.e., the verification theory of meaning,⁵⁸ is adopted, this notion undergoes a radical transformation. For, one would then be obliged to recognize only those statements for which direct observational verification is presently at least practically conceivable as empirical. That is, even if the observational confirmation of a particular statement were logically possible, if we did not know how this might be achieved, we would be obliged to deny that assertion's empirical status. And it

seems evident that we now can neither provide such confirmation for our first-person psychological statements, nor know how it might be obtained. Since such assertions are obviously not analytic it follows from the positivistic account that they must be quite meaningless. To avoid this conclusion, logical behaviourism was introduced, and despite insuperable objections, many still adhere to this programme.⁵⁹ But, with the passing of positivism, and verificationism in particular, it can no longer be maintained that the practical inconceivability of conditions under which a contingent assertion might be experimentally verified is sufficient to prove it meaningless. Such statements, it must be admitted, might well convey factual information even though there is no way to subject those facts to public test. Yet, if it could be established that the observational confirmation of a contingent statement is, in fact, logically impossible, the phenomena which it describes could not, by the foregoing argument, be regarded as 'facts in the world'; descriptions of such phenomena would not therefore be empirical statements. And it is essentially this point that is being argued by those who maintain that

the patent characteristic which function[s] as a basis for the application of one identical name to all the things called 'psychical' or 'mental' [is] their inherently private character.⁶⁰

That is, by establishing that mental states are inherently private and that, with respect to his own mental states, the individual is the 'final epistemological authority',⁶¹ one would demonstrate the logical impossibility of empirically confirming statements which concern such phenomena. This would then justify his denying their empirical status. And he might, on this basis, continue to maintain the foregoing assumption. To sustain his position, a regulist would therefore be required to dispose of this allegation.

Now, my mental states, my thoughts and pains, anger and aspirations are, in some sense, peculiarly mine. I experience them in a way that no one else could, and it is upon these experiences that my first-person singular, psychological statements are based. With respect to them, my evidence, i.e., the immediate experience of a mental state, is superior to and overrides any evidence which another might obtain.⁶² It could hardly be denied that the one who undergoes such experiences has privileged access to them and is "the final authority concerning their existence and character".⁶³ Such claims might be referred to as the thesis of privileged access and summarized as follows:

[PA] Only the individual has direct and immediate access to his mental states and his evidence for (or against) statements about those states, as he experiences them, i.e., the direct and immediate experience of the event being described, overrides all other evidence with respect to those assertions.

But if, by maintaining the privacy of mental events, anti-regulists were claiming no more than this, they would encounter little opposition. For, one who denies that the individual is in the best position to obtain knowledge of his mental states is unlikely to receive serious attention.⁶⁴ However, this would not serve their purpose. For, from the fact that only the individual has immediate access to his own mental states, it does not follow that it would be logically impossible for another to apprehend them in a similar fashion. And it is the latter that is required to establish that neither psychological states nor statements which make reference to them are empirical. Although it is now unquestionably true, and for that matter may always be so, that an individual alone can immediately apprehend his own mental states, it may nevertheless be logically possible for another to obtain such access as well. Such phenomena may be 'facts in the world' and thus, in principle accessible to public observation, even though we remain practically incapable of performing the requisite observations. Statements describing such occurrences may therefore still be empirical assertions. Our inability to confirm them observationally might well result from our perceptual limitations rather than the 'nonempirical' nature of that which they describe. Only if such observations were logically impossible, i.e., contradictory, would we have reason to believe that the events in question and

hence, that the statements which describe them, were 'nonempirical'. [PA] would not then sustain the anti-regulist claim. Yet, when asked to defend their refusal to admit that there might be empirical laws which make reference to psychological phenomena, anti-regulists customarily respond by appealing to "the inherent and ultimate privacy of psychical events".⁶⁵ His appeal must therefore be understood as involving the stronger contention that one's privileged access to his own mental states is not just a contingent fact, but a logical necessity, i.e., that it is logically impossible for another to apprehend them in a similar manner. Such a contention, which we might refer to as the thesis of logically privileged access, might be stated as follows:

[LPA] Necessarily, only the individual has direct and immediate access to his own mental states and his evidence for (or against) statements about those states, as he experiences them, i.e., the direct and immediate experience of the event being described, necessarily overrides all other evidence with respect to those assertions.

Only on this basis could the fourth anti-regulist assumption be sustained and with it, the conclusion to which it leads. Unlike its predecessor, however, [LPA] has met with considerable resistance.⁶⁶

While [PA] is generally accepted, there is no such consensus with respect to [LPA]. For, "how any proposition can be not simply true but necessarily true" has seemed

deeply puzzling to many of the al
And [LPA] is equivalent to

□ [PA]

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(a) $\Box \sim (\text{Empirical statements describe mental states})$

Yet, as we have seen, the fourth anti-regulist assumption entails [LPA], and this might be stated as

(b) $\Box \sim (\text{Empirical statements describe mental states}) \supset \Box [\text{LPA}]$.

In the light of the controversy surrounding [LPA] and synthetic a priori truths in general, however, we would appear to be compelled to admit to at least the possibility of its falsehood, an admission that would be captured by

(c) $\Diamond \sim \Box [\text{LPA}]$.

But, from (b) and (c), we might quickly infer

(d) $\Diamond \sim \Box \sim (\text{Empirical statements describe mental states})$

which is equivalent to

(e) $\Diamond (\text{Empirical statements describe mental states})$,

i.e., the denial of the fourth anti-regulist assumption.⁷¹

And without his fourth assumption, the anti-regulist could no longer hope to reach his intended conclusion. With this, we remove the last of the major objections to a regulistic programme.

The objections which we have considered - and these are generally thought to be the principal obstacles to regulism - are intended to establish that, in social science, explanation could involve no appeal to empirical

law and, hence, could not satisfy the first condition of the covering-law model, i.e., the covering-law condition. But, in that case, they must fail the second, viz., the deductive condition, as well. And since they satisfy neither of the conditions which govern covering-law explanations, it is then concluded that social scientific explanations could not possibly take this form and that regulism must therefore be mistaken. Yet, as we have seen, each of these objections is demonstrably fallacious and thus, could not sustain the intended conclusion. That there are laws of the required sort and that social scientists employ them, whether explicitly or implicitly, in their explanations would then continue to be a possibility, despite anti-regulist claims to the contrary. And with this, the viability of regulism is established. But this does not demonstrate its truth. For, while our arguments expose the failure of a priori refutations and thereby preserve the possibility of a regulistic account, they do not show that this theory provides us with the correct analysis of explanation in social science. And it is this that a defense of regulism must ultimately establish. Having proven the possibility of a regulistic analysis, its defenders must now endeavour to show that, by the criteria according to which such judgments are made,⁷² regulism is able to accommodate all the relevant data better than any of the available alternatives and thus is most likely to provide a correct representation

of fact. To accomplish this, however, one would be obliged to construct a specific regulistic theory,⁷³ and demonstrate its preferability. And this raises questions as to how such requirements might be satisfied.

Now, in the foregoing discussion, we have already established certain parameters governing such a project. That is, anti-regulists are quite correct in maintaining that the social sciences are, in the final analysis, concerned with human action. An adequate account of social scientific explanation must then represent such explanations as being ultimately explanations of human action, i.e., action-explanations. Moreover, human action is essentially related to the mental states of its initiator,⁷⁴ a person, and no analysis which neglects this fact would be acceptable. The explanans of an action-explanation must therefore make reference to psychological states. And, in order that these explanations be covering-law, such references must occur in both the laws and the singular statements of their explanans. Such considerations would, of course, preclude regulistic theories based upon metaphysical holism as well as those falling under the general classification of traditional regulism. But, with this, we come to the crucial task. For, if one is to construct a particular regulistic theory and show it to be preferable to its competitors, proving the possibility of the requisite laws is clearly insufficient; he must show that such laws

actually exist, that we are acquainted with them, and that we employ them in our explanations of action. Upon this, rests regulism's defense. Supporting these contentions will therefore be the primary objective of this essay.

It has been maintained that

the best we can do for the regularity theory is to formulate it as clearly as possible, ward off direct objections to it, show the inadequacies of competing alternatives, and then indicate how the valuable insights of alternative views can be incorporated into the regularity theory.⁷⁵

And such an approach would appear to hold real promise. Unfortunately, few, if any, have attempted its systematic pursuit. In this essay, I shall endeavour to correct this omission. Beginning with a critical appraisal of anti-regulistic alternatives, I shall develop a regulistic position which, while accommodating all the insights of its competitors, avoids the difficulties which they have encountered. When this has been accomplished, I shall respond to the various objections which might be levelled at my position. And in this manner, I shall endeavour to obtain a satisfactory resolution to the controversy.

FOOTNOTES

- 1 Gallie, W.B., "Explanation in History and the Genetic Sciences", in Readings in the Philosophy of Science, edited by Baruch A. Brody, pg. 150.
- 2 Homans, George C., The Nature of Social Science, pg. 28.
- 3 Hempel, Carl G., "Studies in the Logic of Explanation", pg. 248.
- 4 "The ultimate constituents of the social world are individual people who act more or less appropriately in the light of their dispositions and understanding of their situation." See, J.W.N. Watkins, "Methodological Individualism and Social Tendencies", in Readings in the Philosophy of Social Science, edited by May Brodbeck, pg. 270. Ontological holism might be disregarded.
- 5 Brodbeck, May, "Meaning and Action", in Readings in the Philosophy of Social Science, pg. 64.
- 6 Meyerhoff, Hans (editor), The Philosophy of History in Our Time, pg. 20.
- 7 Taylor, Charles, The Explanation of Behaviour, pg. 35.
- 8 "The laws by which we explain action must be such that the antecedent is the condition of the agent having a certain intention or purpose." See, Charles Taylor, op. cit., pg. 36.
- 9 The account summarized here is, of course, quite inadequate. For, "regularities are where you find them, and you can find them anywhere". (cf. Nelson Goodman, Fact, Fiction, and Forecast, pg. 82) Even if it were necessary, inductive generalization would not be sufficient to provide us with empirical laws. For it makes no distinction between nomological and accidental generalization with the disastrous results mentioned earlier (cf. footnote 12, Chapter One). But the fact that the theoretical laws of science are indisputably empirical, although they could not possibly be obtained by means of inductive generalization would suggest that this process is not even necessary. Yet, this would

not alter the point being made here. For, however empirical laws are discovered, if there are to be such laws, they must regulate events insofar as they might be described as being of certain general types. That is, "a lawlike sentence... must contain no essential, i.e., uneliminable - occurrence of designators for particular objects" (cf. Hempel, "Studies in the Logic of Explanation", pg. 268) or events. Insofar as an assertion makes reference to particular, unrepeatable objects or events, it is not generalizable and hence, could not be recognized as lawful.

10 Dray, William, Laws and Explanation in History, pg. 44.

11 "We may have a scientific investigation of any subject-matter about which it is possible to establish generalizations." See, Peter Winch, The Idea of a Social Science, pg. 67.

12 "It is to the uniqueness of any social event that the social inquirer's interest is turned." See, Richard S. Rudner, Philosophy of Social Science, pg. 70.

13 "That the French Revolution is complex does not prevent its being explained as typical; it does not prevent its being regarded as an 'instance' of a law of revolutions. What prevents this is...a presupposition of historical inquiry...To treat the French Revolution as an instance of anything is to abandon historical inquiry for scientific. The moment historical facts are regarded as instances of general laws,...history is dismissed." See, William Dray, op. cit., pg. 49-50.

14 Winch, op. cit., pg. 67.

15 "To find the causes of an event usually involves at the same time finding its explanation." See, P.W. Bridgman, The Logic of Modern Physics, pg. 80.

16 "A causal explanation of an event means to deduce a statement which describes it, using as premises of the deduction one or more universal laws; together with certain singular statements, the initial conditions." See, Karl R. Popper, The Logic of Scientific Discovery, pg. 59.

17 Although widely adopted, this account of science is highly oversimplified, if not completely misconceived. But this point will be developed below.

- 18 Melden, A.I., Free Action, pg. 84.
- 19 Peters, R.S., The Concept of Motivation, pg. 10.
- 20 Hume, David, An Enquiry Concerning Human Understanding, Sect. IV, Part 1, pg. 44. "The very notion of a causal sequence implies that cause and effect are intelligible without any logically internal relations of the one to the other." See, Melden, op. cit., pg. 62.
- 21 That is, because "the mind can...find the effect in the supposed cause". See, Hume, op. cit., pg. 43.
- 22 Taylor, op. cit., pg. 82.
- 23 Here, one who takes the Einsteinian position cited below might object that statistical laws are, in fact, incomplete descriptions of causal connections and hence, that explanations which employ such laws, i.e., inductive-statistical explanations, may be causal explanations as well. Such a thesis, however, would not compromise my claim. For it amounts to maintaining that all explanations are fundamentally deductive-nomological explanations. It is our lack of knowledge rather than any essential difference among the explanations themselves that results in our drawing a distinction between D-N and I-S models of explanation.
- 24 And given recent developments in quantum mechanics, such a thesis would be extremely difficult to defend.
- 25 Hempel, Carl G., "Aspects of Scientific Explanation", pg. 352.
- 26 White, Morton, Foundations of Historical Knowledge, pg. 20.
- 27 Hempel, "Aspects of Scientific Explanation", pg. 352-353.
- 28 Leach, James J., "The Logic of the Situation", pg. 271. Thus, in "The Function of General Laws in History", Hempel maintains that "it seems possible and justifiable to construe certain explanations offered in History as based on the assumption of probability hypotheses rather than general 'deterministic' laws"; (cf. pg. 237) and in The Structure of Science, Nagel claims that "laws in social sciences are perhaps exclusively statistical" (cf. pg. 504).

29 That is, their specification would "require...reference to a...particular object or location" (cf. Hempel, "Aspects of Scientific Explanation", pg. 342). Assertions making reference to such occurrences could not then satisfy the condition of universal scope and thus, would not be lawful.

30 Dray, op. cit., pg. 45.

See, Richard S. Rudner, Philosophy of Social Science, pg. 70; Carl G. Hempel, "Studies in the Logic of Explanation", pg. 253.

32 Butler, Joseph, "Preface to Butler's Sermons", in Ethical Theories, edited by A.I. Melden, pg. 239.

33 Dray, op. cit., pg. 118.

34 Since such 'phenomena' would have no qualities, there would be none to undergo change. Nothing could happen. There could then be no events to investigate or explain, no information to convey and hence, no social science.

35 See, Karl R. Popper, The Logic of Scientific Discovery; Objective Knowledge; Israel Scheffler, The Anatomy of Inquiry; Nelson Goodman, Fact, Fiction, and Forecast.

36 That is, laws which retain "a meaning that can be formulated independently of the theory; and...is based on observational evidence". See, Ernest Nagel, The Structure of Science, pg. 86.

37 How this might be accomplished need not concern us here.

38 Hempel, "Studies in the Logic of Explanation", pg. 267.

39 Somewhat less cataclysmically, any closed, self-destructive system, such as a bomb, would serve as an illustrative model. All changes in such a system, including its own complete destruction, are completely determined by the principles which govern the system. These principles are, of course, known by the system's designer, although he did not, and could not, obtain such knowledge by inductive inference from past observations of the system (token). Moreover, while the system may only be

instantiated once, the principles governing it would describe an unlimited number of possible instances. Relative to this system (token), its destruction is quite unique and unrepeatable. Yet this, like every other change within the system, is totally determined, explainable and predictable, by the governing principles.

40. Brodbeck, May, "Methodological Individualism: Definition and Reduction", in Readings in the Philosophy of Social Science, pg. 283.

41. Davidson, Donald, "Actions, Reasons, and Causes", in The Nature of Human Action, edited by Myles Brand, pg. 77.

42. Hempel, Carl G., "The Function of General Laws in History", pg. 242.

43. Homans, op. cit., pg. 58. See also, B.F. Skinner, Science and Human Behaviour. This has given rise to "the standpoint in social science known as 'behaviourism'" (cf. Ernest Nagel, The Structure of Science, pg. 473-485).

44. Peters, op. cit., pg. 4.

45. White, op. cit., pg. 56. Although White would be considered a regulist insofar as he maintains that empirical laws are required for the explanation of human behaviour, he denies that explanations in terms of reasons are 'explanation-sketches' of the sort described here and argues that "certain singular statements...are explanations" (loc. cit.). Thus, according to White, 'J A-ed because he wanted ϕ ' would be a complete and adequate explanation of J's A-ing if, and only if, there is a sound covering-law argument containing 'J wants ϕ ' as a premiss and 'J A-s' as its conclusion.

White denies that such explanations are enthymemes, as many have maintained, because

the person who reasons enthymematically will usually have in mind the omitted premises and supply it when taxed by a precisian, whereas historians do not usually have in mind all of the premises that would allow them to present an explanatory deductive argument (ibid., pg. 58).

But this would be quite insufficient to sustain his objection. It is, indeed, an ignoratio elenchi. For,

whether or not one actually has the missing premisses in mind and can provide them on demand is quite beside the point. An argument is an enthymeme, if it is possible to provide the missing premisses, whether or not anyone is actually able to state them on any particular occasion. White's conditions for a statement's being regarded as explanatory are precisely those in virtue of which it would be recognized as an explanation-sketch. The issues which he raises would then seem to be more verbal than substantive.

Moreover, White maintains that

the standard version of the regularity theory may be construed as requiring that every singular causal statement be expanded so as to become an explanatory, deductive argument (loc. cit.),

and it is against this position that he directs his objection. But I have yet to encounter a regulist who takes such a view. As usually stated, regulism is the thesis that it is possible, whether or not anyone is actually able to do so, to supplement the reasons which we offer in explanation of behaviour so as to provide a complete explanatory, deductive argument, and it is solely in virtue of this possibility - which may or may not be actualized - that such assertions are recognized as both enthymemes and explanatory. White would then appear to be attacking a 'straw man' and his alternative would seem to be equivalent to the standard regulistic position.

46 Hempel, "Explanation in Science and in History", in Philosophical Analysis and History, edited by William H. Dray, pg. 120. As was observed above (cf. footnote 28), in other contexts, Hempel presumably held that these arguments would be Inductive-Statistical rather than Deductive-Nomological.

47 Melden, op. cit., pg. 64.

48 Peters, op. cit., pg. 12.

49 "The idea of action as distinct from mere movement cannot be an empirically founded idea." See, Taylor, op. cit., pg. 91.

50 Langford, Glen, Human Action, pg. 29.

51 Taylor, op. cit., pg. 29.

52 Harré, H., and P.F. Secord, The Explanation of Social Behaviour, pg. 15.

53 Louch, A.R., Explanation and Human Action, pg. 28.

54 Hempel, "Aspects of Scientific Explanation", pg. 367-368.

55 And this would seem to lead us back to metaphysical holism.

56 "When we describe actions in terms of movements, we lose the real significance of the action as a part of human social life." See, Harré and Secord, op. cit., pg. 39.

57 This would, of course, presuppose a realistic account of scientific theories. An operationalist would agree that theories convey information, but would argue that they ultimately describe observables so that they are observationally confirmable. An instrumentalist, on the other hand, would deny that theories are properly construed as declarative statements and hence, that they convey any information whatsoever. Here, I can only agree with Grover Maxwell

that anyone today should seriously contend that the entities referred to by scientific theories are only convenient fictions, or that talk about such entities is translatable without remainder into talk about sense contents or everyday physical objects, or that such talk should be regarded as belonging to a mere calculating device and thus, without cognitive content... [is] incongruous with the scientific and rational attitude and practice (See, "The Ontological Status of Theoretical Entities", pg. 3).

These alternatives are the spawn of positivism, and with its passing, they no longer merit serious attention.

58 See, A.J. Ayer, Language, Truth, and Logic. Although explicitly formulated by the positivists, this doctrine was implicit in empiricism from its inception.

59 This is essentially the position adopted by both George Homans and B.F. Skinner. In The Explanation of Social Behaviour, Harré and Secord give a good account of the ongoing influence of this theory.

60 Ducasse, Curt, "In Defense of Dualism", in Dimensions of Mind, edited by Sidney Hook, pg. 86.

61 See, Kurt Baier, "Smart on Sensations", in The Mind/Brain Identity Theory, edited by V.C. Borst, pp. 95-106.

62 Here, it is customary to say that my evidence is direct, whereas others have only indirect evidence with respect to these claims, where 'direct evidence' might be understood as 'immediate apprehension of that which the statement asserts' and 'indirect evidence', as 'evidence which is not direct'. Since direct evidence and only direct evidence guarantees an assertion's truth, it is evident why one must be the ultimate epistemic authority with respect to his first-person, psychological statements. When interpreted in this way, privileged access implies the incorrigibility of first-person, psychological assertions. I have therefore treated them as a single thesis.

63 Ayer, A.J., "Privacy", in Studies in the Philosophy of Thought and Action, edited by P.F. Strawson, pg. 37.

64 Largely because of its commitment to such a view, logical behaviourism has been generally abandoned as an acceptable theory of mind.

65 Ducasse, op. cit., pg. 86.

66 Objections to it have been raised by D.M. Armstrong in A Materialist Theory of Mind, Bruce Aune in Knowledge, Mind, and Nature, Wilfrid Sellars in Science, Perception, and Reality to name but a few.

67 Edwards, Paul (general editor), The Encyclopedia of Philosophy, Vol. 4, pg. 479.

68 Since those who argue for [LPA] base their defence of this thesis upon epistemic considerations, it would seem that we might quite validly defend the third premiss of the subsequent argument, i.e., (c), upon similar grounds. Insofar as the necessity operator occurring here is logical, the possibility operator introduced in (c) would be as well. However, should one maintain that the latter is epistemic, he must acknowledge that the former is also.

69 The former has been recognized as the strong sense of analyticity according to which "an analytic statement is... one which proceeds from logic and definitions or...which, on replacement of definienda by definienda, becomes a truth of logic" (cf. W.V.O. Quine, "Truth by Convention", in: Readings in Philosophical Analysis, edited by Herbert Feigl and Wilfrid Sellars, pg. 258), while the latter is referred to as the weak sense of analyticity according to which an analytic statement is "true by virtue of the terms involved" (cf. Wilfrid Sellars, "Is There a Synthetic A Priori?", in Science, Perception, and Reality, pg. 135-6).

70 "One of the theses that seems to define... 'empiricism'... is that all a priori truth is analytic; which is, of course, equivalent to denying that there are synthetic a priori truths" (cf. Arthur Pap, Semantics and Necessary Truth, pg. 94).

71 The foregoing deduction would be valid in any modal system in which the definition ' $\sim \Diamond \sim p \equiv \Box p$ ' and the axiom ' $\Box \Box p \equiv \Box p$ ' occur.

72 "Although both safety and strength are desirable features of a theory, ... simplicity, must be taken into account" (cf. Nelson Goodman, "Safety, Strength, Simplicity", in The Philosophy of Science, edited by P.H. Niddich, pg. 121) as well. Where all the data are accommodated by several competing theories, I assume that our decision as to which is best and hence, most likely to be true, will depend upon their relative manifestation of these three features.

73 Although many have espoused regularism, few have seriously undertaken the construction of a determinate, regulistic position. And it is here that I would locate my predecessors' principal failure.

74 "An action... is never equivalent to... motions" (cf. Charles Taylor, op. cit., pg. 55).

75 Leach, op. cit., pg. 259.

A scientific explanation, as characterized as a description of a phenomenon occurred, and only the natural sciences provide us with such descriptions. If the social sciences are to be considered as sciences, they too must provide such descriptions. But, unlike the natural sciences which are ultimately concerned with human phenomena, the social sciences explain phenomena, the social sciences provide must then be explanation of human action-explanations. As action-explanations in the social sciences might be

(A) 'Why did

where 'J' designates a person (or a group) and 'A' designates an action. The controversy in social science may then be a dispute over what constitutes an adequate explanation, i.e., a dispute over the features of human action which are manifest and by which they are explained. This debate concerns the formal

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explanations, the general requirements which such explanations must satisfy, and their resultant structure. Regulists maintain that they, like the answers to similar questions in natural science, share in those general features represented by the covering-law model of explanation, and of course anti-regulists deny this.

In this essay, I shall endeavour to confirm the regulistic thesis by developing a covering-law analysis of action-explanation which can be proven superior to its competitors by the appropriate standards. To accomplish this, one would be obliged to show that his theory can accommodate all the relevant data better than any of the available alternatives. That is, his account must be seen to embrace all the insights of its rivals, while avoiding their oversights. But this, in turn, presupposes knowledge of the strengths as well as the weaknesses of competing claims, i.e., the merits and demerits of anti-regulistic theories. And it is upon such foundations that I shall construct my defense of regulism. To fulfill this requirement, I shall now consider the anti-regulist alternatives.

I

Now if, as we have argued, the social sciences are truly scientific, regulism and anti-regulism are exclusive and exhaustive alternatives. However, anti-regulism admits of a further bifurcation. For, one who takes this position might adopt either one of two alternative theses; he might maintain either (a) that action-explanations and hence, explanation in social science, involve no general principles whatsoever, or (b) that, while these explanations require the mediation of general principles, the generalizations involved are essentially different from the descriptive principles employed in natural science. One who adopts the latter would then have no recourse but to say that the general statements occurring in action-explanations are prescriptive principles. And according as to which of these alternatives one adopts, his conception of action-explanation and hence, of explanation in social science, will vary. Each has had its adherents and has given rise to distinct models of action-explanation. Advocates of the former have developed what has been called "explanation by 'the logic of the situation'",¹ or the 'ad hoc' model of explanation;² those who subscribe to the latter have constructed a ⁰model which has been referred to as 'moral',³ rational, or purposive explanation. And an exhaustive appraisal of anti-regulism would call for an assessment of

both. I shall therefore undertake an extensive examination of each of these positions. Of those who espouse the former, Alan Donagan⁴ has provided the most rigorous analysis; and among those who subscribe to the latter, William Dray's account⁵ would seem to be the clearest. I shall then accept these two models as representative and assume that all anti-regulist analyses might be assimilated to one of them.

The Donagan Model: (M₁)

Some have argued that action-explanation and thus, explanation in social science, "is not based on any universal hypothesis whatever".⁶ According to them, a fully constructed answer to (A), i.e., an action-explanation, is best represented as

- (M₁)
- (i) J was resolved to achieve ϕ at all cost,
 - (ii) J judged his situation to be of type C,
 - (iii) J judged that ϕ could only be achieved in a situation of type C, if he A-ed,

Therefore, (B) J A-ed,

where ' ϕ ' denotes the object of J's desires⁷ and 'C', a factual description.⁸ Although the explanans here contains no universal assertions, the explanandum, we are told, follows from it; (i), (ii), and (iii) allegedly entail (B). In virtue of this entailment, knowing the premisses provides good grounds for assuming that the event described by the conclusion occurred. Arguments of this sort are then thought to satisfy the condition of rational expectation which guarantees the explanatory relevance of their

premisses to their conclusion and thereby merit recognition as adequate explanations.

To this it might be objected that the alleged entailment is, in fact, illusory. For the truth of the explanans does not logically guarantee the truth of the explanandum. J might well satisfy the conditions described by the premisses. Yet, through misfortune, accident, or illness, he might fail to implement his resolution. Actions, after all, are also facts in the world. And one could hardly expect to obtain knowledge of what is the case by learning of what someone thinks it to be.

There is simply a huge logical gap between what a person resolves to do...or what he judges to be the case, on the one hand, and what a person does or what is the case on the other.⁹

Whether or not an agent succeeds in performing a particular action is as dependent upon his situation as it actually is, as it is on his beliefs and desires with respect to his situation.¹⁰ Without some reference to the agent's actual situation, as distinct from the situation as he judges it to be, we have absolutely no reason to believe that the agent succeeded in implementing his decision to act. From the explanans of (M₁), the most that one could infer is that

(C) 'J decided to A'.

But, as is evidenced daily, the difference between a decision to act and the performance of that action is vast. That one has decided to do something is no guarantee of his actually doing it. What occurs in men's minds need have no effect whatsoever upon what transpires in the world.

Now, according to the condition of rational expectation

in any adequate explanation of an empirical phenomenon the explanans must provide good grounds for believing or asserting that the explanandum phenomenon did in fact occur.¹¹

Unless this requirement were satisfied, an alleged explanans would not be explanatorily relevant to the explanandum-event and the argument as a whole would not merit recognition as an adequate explanation. But (M₁), we were told, fulfills this condition in virtue of the entailment between its premisses and its conclusion. And on this basis, it is maintained, this model is explanatorily adequate and arguments of this form provide satisfactory explanations of phenomena.¹² Yet, as was argued above, (i), (ii), and (iii), viz., the explanans of (M₁), do not entail (B), its explanandum; while these premisses might provide adequate grounds for accepting (C), they constitute no guarantee that J actually performed the action to be explained. Whether J actually A-ed, i.e., the explanandum is true, remains in doubt. And from this it would follow that (M₁) could not satisfy the condition of rational

expectation and hence, could not be regarded as an adequate model of explanation.)

In face of the foregoing objection, (M_1)'s adherents must abandon their contention that (i), (ii), and (iii) imply (B) and admit that the most that can be inferred from these premisses is (C).¹³ Yet, this would not compel their abandonment of the model. For they might still argue with some cogency that, while one's decision to do something does not guarantee his actually doing it, it does, nevertheless, provide us with some reason for anticipating his behaving in this manner. Barring interference and inadvertency, people generally do what they decide to do. Thus, insofar as (M_1)'s premisses make (C)'s acceptance reasonable, they would also lend some support to (B), making it more likely to be true than it would otherwise be. But, it might then be maintained - and again, with some plausibility - that, given human freedom, etc., there can be no stronger basis for the rational expectation of an action; knowledge that a person has decided to act in a particular manner is the best grounds we can obtain for anticipating his performance of that action. That is, where the event to be explained is an action, knowing that a person decided to act in that way is itself sufficient to satisfy the condition of rational expectation and, with respect to such phenomena, there can be no greater guarantee. To deny that, by making (C)'s acceptance reasonable, (M_1)'s

premisses render (B)'s acceptance reasonable as well, would then amount to an a priori decision as to which sentential relations reflect explanatory adequacy, i.e., how sentences must be related in order that they satisfy the condition of rational expectation. And this is tantamount to deciding what formal characteristics an adequate explanation must have, that is, what will be recognized as an explanation. Rather than proving (M₁)'s inadequacy, such a response would then presuppose it and thus, would only succeed in begging the question.

Those who subscribe to this model might argue that an analysis of action-explanation, whether in social science or in ordinary discourse, reveals them to be of this form. And, since we acknowledge such arguments to be explanatorily adequate, we must either deny that "reasonable expectation... is... a necessary condition for explanatory adequacy",¹⁴ or we must interpret the condition of rational expectation in such a way as to accommodate (M₁). And, by shifting the dispute to this requirement, they might continue to defend their thesis. Their position might thus be sustained against the foregoing objection.

The Dravian Model: (M₂)

In contrast to the explanatory model described above, many anti-regulists have argued that action-explanations take a form which falls short of, as well as, goes beyond, subsuming a case under empirical laws".¹⁵ Understanding an

action calls for knowledge of the reasons for which it was performed. But

reporting reasons, if they are to be explanatory... must be good reasons in the sense that if the situation had been as the agent envisaged it..., then what was done would have been the thing to have done.¹⁶

Thus, if we are to explain a certain action, we must not only know the agent's reason for performing it, but we must also recognize it as a good reason. But good reasons are generalizable. That is, in order that something be accepted as a good reason for a person's acting in a certain manner, it must be recognized as a good reason for anyone else's acting in the same way under similar circumstances. To explain actions, it is then maintained, we require rules, "norms or standards of social appropriateness",¹⁷ means of which an agent's reasons for acting might be seen as good reasons. And it is principles of this sort that are employed in our explanations of human action. They "enable us to evaluate what is being done".¹⁸ And action-explanations are no more than the provision of such evaluations of behaviour. Explanations of this sort are said to be moral, rational, or purposive explanations.

Unlike the empirical laws which natural scientists employ in their explanations of phenomena, the general assertions required for the explanation of actions are normative rather than descriptive. For this reason, such a statement "is better called a principle of action than a

generalization".¹⁹ Whereas the discovery of just one counter-example is considered sufficient to refute an empirical generalization, this is not true of the normative principles which govern rational explanation. Even if such a principle should fail to rationalize actions, it would still have explanatory force. Thus,

finding a large number of negative instances - finding that people often do not act in accordance with it - would create a presumption against the claim of a given principle to universal validity. But it would not compel its withdrawal; and if it was not withdrawn, the explanatory value of the principle for those actions which were in accordance with it would remain.²⁰

And, with the aid of such principles, an agent's reason for acting may be recognized as a good reason. Knowing a person's reason for acting and the justifying principle governing his situation would then provide us with an understanding of what he did. And this, we are told, is the appropriate mode of explanation for human behaviour. This model of action-explanation might then be represented as follows:

- (M₂) (i) J was in a situation of type C.
 (ii) In a situation of type C, the appropriate thing to do is A.

Therefore, (B) J A-ed.

Now, since (ii), the principle of action, could not be disconfirmed by negative instances, it would not be confirmed by positive instances. On what basis are such principles

then accepted? How is one to distinguish 'valid' and thus, explanatory principles of action, from their 'invalid' and nonexplanatory imitators? People frequently differ in their appraisal of reasons; some accept, while others reject, one and the same reason as justifying an action. But, according to the foregoing account, if a reason should succeed in explaining an action in but one case, i.e., if only one person were to accept it as justifying a particular action, the principle on the basis of which it was recognized as a good reason must be recognized as valid (at least for that case). Yet, this would seem to remove all the normative force of such rules. For, rather than tell us what is a good reason, they would merely succeed in apprising us of what someone or other believed to be a good reason. And, that someone happens to believe something to be a good reason, whether his belief happens to be true or not, is a question of fact rather than values. Moreover, from the fact that someone believes a specific action to be justified by a certain reason, it does not follow that anyone else would, or should, have the same belief. Thus, with the loss of their normative force, these principles would appear to lose their generality as well.

Explanations of this sort are supposed to render actions comprehensible by showing that they were done for what, at the time, was accepted as a good reason. As to whether a person would regard these same reasons as good

reasons for acting on any other occasion, or what others might decide with respect to such matters, remains quite undetermined. And, on this basis, the prediction of action would be quite impossible. For, to explain a person's action, we are told, one must "know what considerations convinced him to act as he did".²¹ Predicting his behaviour would then require our knowing what considerations will convince him to act. But, since there is absolutely no guarantee that the reasons, and the principles in the light of which they were seen as good reasons, which brought about a particular action will ever again motivate behaviour, the knowledge which we require for such predictions would seem to be unattainable. According to this programme, human action would then be quite unpredictable. Yet, "it is a matter of common knowledge that many important developments in human affairs can be foretold with great accuracy".²² And any theory which fails to accommodate this fact can only be viewed with skepticism. But, it might also be observed that, while few actions, if any, have been accepted as reasonable by everyone at all times, every action must, at some time, have been regarded as the reasonable thing to do by someone. At least the one performing it must consider it the appropriate thing to do at the time he did it. But, in that case, we would be obliged to admit that any action whatsoever, no matter how bizarre, might be shown to be the reasonable thing to have done. Thus, both the horrors

perpetrated by Hitler and the ravings of Bedlamites might be justified on this account.²³ And where all actions can be proven reasonable, one can only suspect the proof.

According to this analysis, if a principle of action is accepted for purposes of explanation on but one occasion, it continues to have explanatory force, i.e., it continues to be an acceptable principle of action. But, as we have argued above, acceptance does not necessarily establish acceptability. And recognition of this would seem to undermine the entire programme. There is, however, another point which merits attention. According to the foregoing presentation, 'a situation of type C', as it occurs in (M_2) , remains completely unspecified. Here, we might assume that 'C' designates some feature or features of the agent's, J's, circumstance, facts about his situation or condition; or alternatively, that it consists of a statement (or set of statements) describing the agent, J. But what features are to be included? Before we could even begin to construct an explanation of this sort, we would require some instructions as to how, for the purpose of explaining his action, an agent's situation is to be characterized. However, advocates of (M_2) would seem to have overlooked this fact. At any particular time and place, an individual might be described by an indefinite, and exceedingly large, set of true, factual statements. The vast majority of these facts are unknown to anyone,

including the subject. And, on this basis, a person's situation could always be truly described in an indefinite number of different ways. If, when explaining his action, we were required to take his entire situation, i.e., all true factual assertions about the agent, into account, since this is at least practically impossible, no action could be explained. Moreover, much of what would be included in such a list would be quite irrelevant to the action and hence, of no assistance in its explanation. For the purpose of explaining his action, we might therefore assume that our characterization of an agent's situation, i.e., those features which are designated by 'C' as it occurs in 'a situation of type C', must include only those features which are relevant to his performance of that action. But which are these? (M_2)'s defenders do not tell us. But, if our action-explanations are to take this form, we must have such knowledge. As was observed, an agent's situation might be characterized in many different ways. Among these diverse descriptions, there are always those in the light of which any action the agent might perform would appear reasonable. Alternatively, there will be other members of this set in the light of which his performance of the same action would appear quite unreasonable and hence, unexplainable. Thus, filching forty-three cents from a blind news-dealer would seem comprehensible, if regrettable, when we know that the perpetrator was hungry

and wanted to buy food. But it becomes far less so when it is discovered that the culprit was aware of having a hundred dollars in his pocket. Similarly, pushing one's mother down the stairs might seem quite unjustifiable until it is learned that this occurred in an effort to remove her from a burning building. But which of these descriptions are we to adopt, and on what basis are we to make this selection? If all are equally acceptable, then one and the same reason must be recognized as both a good and a bad reason for acting; one and the same action would be both justified and unjustifiable. But this could serve the needs of neither laymen nor social scientists. If, on the other hand, only those aspects of an agent's situation are to be considered relevant to his action which show that action to be the reasonable thing to do under the circumstances, we must once again concede that all actions are reasonable. But, if this is not the criterion by which the relevant aspects of an agent's situation are to be selected, on what basis are such factors to be identified? Its failure to answer such questions leaves this account of action-explanation practically useless.

Now, both premisses (i) and (ii) of (M_2) might be true while the conclusion, (B), is false. That is, one might well be in a situation where a certain action would be appropriate and reasonable, yet fail to perform that action. In the light of (M_2) 's premisses, we might legitimately

conclude that J ought to A, or that he would be justified in performing this action; that is, from (i) and (ii), we might validly infer that

(D) 'Acting is the reasonable (appropriate) thing for J to do'.

However, we would not be warranted in assuming that, because his acting in this manner would have been the reasonable thing for him to do, he actually performed this action.

From the fact that a certain action would be reasonable or appropriate, it does not follow that it was actually done.

All too often, it is just those actions which seem most

reasonable that are never enacted. (D) might be true and

(E) false; the truth of the former is no guarantee of the

latter's truth. But, since knowledge of (M₂)'s premisses

does not guarantee knowledge of its conclusion, it has been

argued that this model fails to satisfy the condition of

rational expectation. It might then be said that the

alleged explanans of this model is explanatorily irrelevant

to the event in question and hence, that no argument of

this form merits recognition as an adequate explanation.

(M₂) could not then represent the logical form of action-explanation.

To meet this objection, the principle of action, viz., premiss (ii) of (M₂), might be modified so as to state what an individual (or the group of which he was a member) consider to be an appropriate action under the circumstances.

If it were then stated that the person in question found himself in that situation, there would then be a strong inclination to assume that he performed the action considered to be appropriate (by him and/or by the group of which he was a member). When revised in this way, the model might succeed in avoiding the preceding objection. For, under such conditions, we would have good reason to believe that the explanandum-event actually occurred. So altered, (M₂) might be represented as:

- (M₃) (i) J was in a situation of type C.
 (ii)* When in a situation of type C, J (or the group of which J is a member) believes that the appropriate thing to do is A.

Therefore, (B) J A-ed.

where (ii)* is a principle of action revised in the manner described above. Although (B) does not follow from (i) and (ii)* deductively, the latter would provide good inductive grounds for the truth of the former. It might then be said "to produce...justification or excuse for what was done",²⁴ and thereby avoid the previous objection.

But let us now consider the cost of such a revision. Whereas in (M₂) "there is an element of appraisal of what was done",²⁵ as a result of the alteration, any hint of this has been removed from (M₃). By changing the principle of action from premiss (ii) to (ii)*, we have changed what was an essentially normative principle into a purely descriptive, empirical statement. The principle no longer

evaluates what was done; but now merely describes what certain people believe about such actions. As a result, the revised model (M_3) becomes purely descriptive. A-ing could not then be demonstrated as either appropriate or reasonable on this basis, but only as an action which some believe to be appropriate or reasonable under the circumstances. And, from the fact that some have such beliefs, it does not follow that others will, or ought to, hold them as well. Indeed, there is no guarantee that even those who subscribe to this belief will continue to do so. And, because (ii)'s generality results from its normative force, when the latter is removed, the former goes as well. Since what people believe is prone to change, if such a principle were now to be recognized as having any explanatory efficacy whatsoever, it could only assist in explaining an individual's action on a specific occasion and would have absolutely no application beyond that limit. There could then be no assurance that a principle which explains an agent's present action would serve to explain any future action which might occur in similar circumstances. Modifying the model in this way would therefore result in such extensive restriction of the principle of action occurring therein as to render it virtually useless for purposes of explanation.

The previous point would seem to leave proponents of the model with the following dilemma: either an argument of

this form, viz., (M_2) , offers no explanation whatsoever, of the explanation which it succeeds in providing, of form (M_3) , is so restricted as to be practically useless. And in neither case would this serve as a basis for the behavioural sciences. Once again, it is the condition of rational expectation which lies at the source of the problem. For, (M_2) 's failure to satisfy this requirement impales it upon the first horn, while modifying it to (M_3) so as to correct this omission impales it upon the second.

But even now, defenders of this model need not acquiesce. For, at this juncture, a re-examination of the problematic condition seems appropriate. That is, rather than admit to the deficiencies raised by the foregoing objections, (M_2) 's proponents are likely to raise questions as to how a particular explanation and/or explanatory model might satisfy the condition of rational expectation, i.e., questions concerning which relations between an argument's premisses and conclusion establish its explanatory adequacy. Since our objectives are primarily descriptive, i.e., since we are endeavouring to establish the logical form of action-explanations as they actually occur, the issue can only be settled by an appeal to what people actually do when they explain such phenomena and to what arguments they accept as explanatorily adequate. The matter cannot be resolved a priori. An account of such matters, if correct, must ultimately be reflected in

practice, and its truth can only be established on this basis. Now, while knowing that it would be reasonable (appropriate) for a person to act in a certain manner does not guarantee his performance of that action, this surely constitutes some grounds for anticipating his performing that action. People can usually be expected to act in a reasonable manner; when they fail to do so, their actions engender surprise and perplexity. That actions which are considered to be inappropriate or unreasonable encounter such a reaction strongly suggests that we do, as a matter of fact, accept their being reasonable or appropriate as, at least, a prima facie reason for anticipating their occurrence. In the light of such experience, the claim that (M₂)'s premisses provides no reason for accepting (B) must be dismissed as simply false. Even if the acceptability of (D) rather than (B) is directly supported by (M₂)'s premisses, insofar as they accomplish this, they also enhance (B)'s credibility, making it more reasonable to expect the action's occurrence than it would otherwise be. But it might then be argued that people's

ability to perform free, responsible actions points to a spiritual power or agency within them that...permits their behaviour to be unpredictable in a way that inorganic nature is not.²⁶

Given man's freedom, the best indication - other than actually observing the action - we have that a certain

action occurred is that it would be reasonable under the circumstances. Although people do not always do what is reasonable, that an action would be reasonable is normally our only basis for anticipating its performance. For, insofar as human actions conform to any general principles whatsoever, the principles could only be those which govern human rationality. And it is only in terms of these principles that actions can be explained. To demand that the explanans of an action-explanation provide us with greater assurance of the event's occurrence is then to seek the unattainable. Human freedom precludes any such guarantee. In that case, however, we must either admit that, by showing the explanandum event to be reasonable (appropriate), this model satisfies the condition of rational expectation, or deny that actions are ever explained. Since all the evidence belies the latter, we would thus be committed to the former. If such claims are then true, and if the possibility of social science is to be preserved, only arguments of this form, viz., (M_2) , could succeed in explaining social activity. Whether we deny that the condition of rational expectation is necessary for explanatory adequacy, or interpret it so as to accommodate the relation between the premisses and conclusion of (M_2) , we must, nevertheless, admit that actions are explained by arguments of this form. To deny this, it might then be argued, is nothing short of an a priori decision as to

which sentential relations are to be recognized as establishing explanatory relevance and, eo ipso, which argument forms represent adequate explanations. And this presupposes the point at issue. But such matters can only be resolved by an investigation of explanations which are actually accepted as adequate. And those who adopt this defense would maintain that common experience confirms that our action-explanations are, in fact, of the form which they advocate.

Although problematic, (M_2) , like its predecessor, might still evade the coup de grâce. Its defense would involve a reappraisal of the criterion by which adequate modes of (scientific) explanation are identified and specifically, of the condition of rational expectancy. The dispute then shifts from the explanatory adequacy of a particular argument form, (M_2) , to the grounds upon which such issues might be settled. And, by an appropriate selection of standards, one might continue to maintain (M_2) 's acceptability. Criticism of the sort we have considered would not then oblige abandonment of this model.

While the anti-regulist alternatives, (M_1) and (M_2) , confront a variety of problems, their conclusive refutation would seem to be unattainable. Yet, this leaves us in a rather awkward situation. For, as we have seen, regulism too encounters a number of problems. It would then appear that we can justify acceptance of neither regulism nor

anti-regulist. Since both are subject to criticism and neither can be conclusively refuted, there would seem to be no rational basis for choosing between them. And, on these grounds, one might conclude that the dispute is undecidable. However, such an appraisal would be premature. For, while we may be unable to offer a conclusive refutation of either position, we may, nevertheless, demonstrate that one provides a better account of the data and, in virtue of this, would rationally justify preference over its competitor. When presented with alternative theories in science, we are frequently confronted with much the same situation as we encounter here. Nevertheless, we are still able to justify rationally our acceptance of one over all the others. And, by invoking the same standards which enable us to make such decisions, we might obtain a resolution to our present problem.

Anti-regulism, it must be acknowledged, offers a number of insights. Yet, these are frequently vitiated by error. If a regulistic analysis which accommodates all the advantages of its rival while avoiding its oversights could then be devised, such an account would be theoretically preferable. Since it would require but one explanatory model for all the sciences, social as well as natural, parsimony would also recommend acceptance of such a programme. And in this way, a rational defence of regulism might be provided.

II

The ultimate objects of social scientific investigation are human actions. In the final analysis, the explanations which these disciplines provide must therefore concern such phenomena, i.e., they must be action-explanations. And, as we have seen, action-explanations might be represented as answers to questions taking the form

(A) 'Why did J A?'

Yet, before one could even pose such a question and hence, obtain an adequate answer to it, he must know that the action to be explained had actually occurred, i.e., that

(B) 'J A-ed'.

If we were unable to obtain such knowledge, action-explanation would be equally impossible. For it makes little sense to talk about why an event occurred until one knows that it occurred. It is therefore necessary that one know of a particular action's occurrence in order for him either to seek or provide its explanation.²⁷ But how might such knowledge be obtained? While actions are as much facts in the world as are any other phenomena, they involve an essential difference. And it is this difference that is crucial to our discussion. For it is on this basis that anti-regulists have argued that actions could not be

explained in the same way as other events. Moreover, since recognition of actions is necessary for their explanation, by determining how such occurrences are identified, i.e., those aspects in virtue of which they are differentiated from all other kinds of phenomena, we might also acquire some insight into their mode of explanation. Our discussion of action-explanation would then lead us directly to an investigation of action-identification.

Now, (B) might be construed as an answer to

(E) 'What did J do?',

where this question is not to be regarded as synonymous with "What action did J perform?"²⁸ And before one could even pose (A), i.e., ask for an action-explanation, he would require an answer to this question, that is, he would have to identify the action to be explained. Yet, (A) could not be appropriately asked of all answers to (E). For not all statements of this form will describe actions. While answers to this question will take the form

'J...-ed',²⁹

not all assertions of this form describe actions. The predicates of such statements may, or may not, designate actions. And only where the event being described is an action would it be appropriate to ask for or offer an action-explanation of it. Thus, 'J jumped' or 'J fell' and 'J winked' or 'J blinked' would all be acceptable answers

to (E). But only the first members of these pairs describe actions. Sentences of this sort, as represented by (B), might be called action-descriptions. 'A', as it occurs in (B), might then be said to represent the indefinite set of predicates designating actions. Our initial task is then to determine how one would establish that the correct answer to (E) is an action-description, i.e., the criterion by means of which actions are distinguished from other kinds of phenomena.

But the ability to differentiate actions from other kinds of phenomena would still not permit the provision of action-explanations. For, even if we knew that what J did on any specific occasion was an action rather than behaviour of some other kind, unless we could also determine which particular action it was, we could neither ask for nor offer an explanation of it; we could neither assert (B)³⁰ nor pose (A) and hence, could not expect to answer this question. In order that an action be explained, it must be recognized as an action of a particular kind, an A-ing rather than a B-ing or C-ing. Until such distinctions are made, action-explanation is impossible. It is therefore not only necessary that we identify an event as an action in order that its explanation be an action-explanation, we must also recognize it as an action of a particular kind. Or to put it somewhat differently, one must first recognize that the event to be explained will take an (some) action-

description, and then determine which particular action-description correctly describes it. And to discover how the latter requirement is satisfied, we must determine the criteria by means of which such distinctions are drawn.

Action-identification might then be said to involve two operations: (a) recognition of an event as an action rather than some other kind of phenomenon, and (b) recognition of an action as being an action of one particular kind rather than another. An adequate account of action-identification must then answer two fundamental questions, viz.,

[I₁] How does one determine that the correct answer to (E) is an action-description?

[or alternatively, How does one determine that a particular event is an action rather than some other kind of phenomenon?]

and

[I₂] How does one determine which action-description provides us with the correct answer to (E)?

[or alternatively, How does one determine that the action which was performed was an action of a particular kind?]

Answers to these two questions would provide us with both of the essential criteria for the identification of actions.

Yet, this account remains somewhat oversimplified. For there are, among actions, other distinctions which philosophers, jurists, and laymen have all been obliged to recognize. Thus, ever since men first reflected upon the

subject, they have classified their behaviour as (e) either voluntary or involuntary,³¹ and as (ii) intentional (deliberate) or non(un)intentional (nondeliberate).³² And any descriptive theory of action-identification might be expected to indicate the grounds for such judgements as well. Yet, "the paradigm case of a human action is when something is done to bring about an end".³³ That is, our basic concept concerns full-blooded, voluntary, intentional actions. From this, we might generate the other classifications of human action. It is therefore this fundamental notion with which we shall here be concerned. The adequacy of a particular analysis of action-identification may then be tested by determining whether it will accommodate the other categories into which actions have traditionally been placed. And our account of action-explanation will depend upon how such paradigm cases of human action are identified. It is therefore about actions in this sense, i.e., full-blooded, voluntary, intentional actions, that questions [I₁] and [I₂] are posed.³⁴ With the elucidation of this notion, we might also cast light upon their paler kin.

Nevertheless, those who consider such matters generally treat (A) and (E), action-explanation and action-identification, as unrelated issues which might be resolved independently of one another. Given (B) as an answer to (E) - however it might have been obtained - they immediately

proceed to the discussion of how an adequate answer to (A) is to be provided and what form this answer would take. On this basis, they then construct their various analyses of action-explanation. And in this tradition, it has been maintained that

to explain the action we need to know what considerations convinced...[the agent]...that he should act as he did.³⁵

and elsewhere, that

to understand a human action...it is necessary...to discover its 'thought-side'; it is not sufficient to know the pattern of overt behaviour.³⁶

To explain and thereby understand the action, we are told, one must know the agent's reasons for acting as he did. But surely this would require knowledge of what action was actually performed, what the agent did. Knowing an action's 'thought-side' would then presuppose the identification of that action. To explain the action, we must first succeed in recognizing it. Before (A) could be meaningfully posed - much less answered - (E)'s answer, viz., (B), must be obtained. As a rule, however, the latter question receives only passing attention. And a moment's reflection might reveal the reason for its neglect. For those who adopt this approach are immediately confronted with a rather embarrassing dilemma: If there is to be a distinction between action-explanation and action-identification - and we would all appear to recognize that there is one - and

if, as they maintain, knowledge of an action's motivating reasons are the grounds for its explanation, there must then be some criterion other than the agent's reasons for acting by means of which his action might be identified. On the other hand, if no such independent criterion is available, one would be obliged to deny that there is any distinction between the explanation of an action and its identification; he would be committed to the view that "when [one] knows what happened, he already knows why it happened".³⁷ The identification of an action would also serve as its explanation. An answer to (E), viz., (B), would answer (A) as well; and these questions would be functionally indistinguishable. But what, other than an agent's reasons for acting, would enable us to identify what it was that he did? The only conceivable alternative would seem to be his "observable and measurable behaviour".³⁸ Yet, it is generally acknowledged that there is "gap between matters of physiological happenings and matters of human action".³⁹ As was observed earlier, mere behaviour, our manifest movements, are neither necessary nor sufficient for action. The same sequence of gestures and/or sounds may constitute any number of different actions, or no action at all; and an action might well be recognized where there is no overt behaviour whatsoever. Any theory of action-explanation which takes overt behaviour as the criterion for action-identification must therefore be abandoned.⁴⁰ The only

alternative is then to recognize that what a person does is both identified and explained by appealing to his reasons.

Precisely this line of reasoning has led many to the conclusion that

the description of something as a human action could not occur prior to the question 'Why?'⁴¹

Actions, it is then maintained, are identified as phenomena "to which a certain sense of the question 'Why?' is given application".⁴² Elsewhere, that is, in natural science, why-questions are posed exclusively to elicit explanations.

In the context of human behaviour, and hence, throughout the social sciences, however, such questions have a dual function; they are the basis of identification as well as explanation. Why-questions must then be recognized as equivocal, having a different sense, different functions, and obeying different semantical rules in the different contexts in which they occur. But one might now ask how we would determine that the required sense of 'Why?' had application. Surely this could only be the case where an appropriate answer, viz., an action-explanation, to that sense of the question might be obtained. Thus, 'Why?', in the appropriate sense, has application, and the event about which it is posed is therefore an action, when and only when that event's explanation would be an action-explanation. This criterion of action-identification would then amount to saying that

[I_a] An event is an action if, and only if, an action-explanation, rather than an explanation of some other kind, would correctly account for its occurrence.

And one could hardly deny that knowing a particular event's occurrence would be truly explained by an action-explanation is both necessary and sufficient for the identification of that event as an action. That is, [I_a] is most certainly true. But its adequacy as a criterion of action-identification might still be questioned. Yet, even if we were to accept it in this capacity, it alone would not fulfill the requirements for action-identification. For, while we might grant that one could identify an event as an action on this basis, this would still not enable him to determine which action it was. While [I_a] might provide us with an answer to [I₁], it does not succeed in answering [I₂]. And only with answers to both of these questions would we have a complete account of action-identification. [I_a] would then require supplementation.

Although advocates of such a programme are not always clear about how they envision this additional requirement to be satisfied, their intentions would seem to be obvious. Indeed, they would appear to have no alternative but to say that one knows which particular action was performed when he knows the action-explanation which actually explains its occurrence. Their answer to [I₂] might then be represented as

[I_b] One knows which particular action occurred, i.e., its correct action-description if, and only if, he knows that action's correct explanation.

Knowing an action's explanation would then be both necessary and sufficient for its identification.⁴³ And we are then

told that the "way of making human actions intelligible is by classifying them as actions of a certain sort".⁴⁴

Identifying an action is then tantamount to explaining it; failing either, one would fail both. Where it concerns human action, knowing what happened amounts to knowing why

it happened. In this respect, explanation - and the understanding thereby obtained - in the social sciences must be fundamentally different from that of all other areas of inquiry. Social science, it has then been argued "gives rise to a unique kind of understanding".⁴⁵ 'Why?', 'explanation', 'understanding', and all their correlatives must be systematically ambiguous, having different meanings and functions and obeying different semantical rules in the different contexts in which they occur.

Our suggestion that how actions are identified will determine how they are explained would now seem to be confirmed. For one who adopts the foregoing account of action-identification is thereby committed to a very definite conception of action-explanation. He must maintain an essential difference between the explanations of natural science and those of the social sciences and, more

generally, he must affirm the fundamental discontinuity of these two areas of scientific endeavour. And such a view would obviously preclude one's adopting any form of regulism.⁴⁶ A regulist would therefore be required to reject this approach to action-identification. But the consequences of this analysis are not exclusively negative. For, one who adopts this position with respect to action-identification is thereby committed to a certain conception of action-explanation. Anything which succeeds in identifying an action must also be acknowledged as an adequate and complete explanation of that phenomenon. Beyond this, there can be no explanation; nor is there anything to be explained. Insofar as they succeed in identifying what was actually done, our daily references to actions must therefore be accepted as complete and adequate explanations of those events. And this is the most that any social science could hope to achieve.⁴⁷

From this perspective, however, the theory's plausibility seems somewhat tarnished. For the social sciences would most certainly appear to accomplish far more than this. Recent achievements in this area would seem to consist in something more than the mere description of events. If this account is correct, one who recognizes an action would also understand it. Once (E) had been answered, (A) would have no linguistic function. As a distinct question, (A) would be linguistically redundant;

to pose it once (E) had been answered would be linguistically odd at best. Assertions like

'I know what J did (what action J performed), but I don't (understand) know why he did it'

would be necessarily false, if not meaningless. Yet, such statements are not uncommon and seem to involve no linguistic improprieties. They would appear to reflect neither conceptual nor logical confusion. One frequently finds himself in circumstances where he knows full well what was done, i.e., the answer to (E), although he does not know why the agent acted in that manner. Indeed, it is upon this that the fascination of detective fiction depends. From the evidence of common experience, one must then conclude that (A) and (E) perform quite distinct functions, that when asking why an action occurred one is making much the same sort of enquiry as he does when he asks for an explanation of an earthquake or of Brownian Movements. While the kinds of events are, admittedly, very different, the sort of information which we seek in either case would appear to be very much the same. Regardless of whether the event happens to be an action or a natural phenomenon, when one asks why it happened, he would appear to be asking for a description of the factors which resulted in its occurrence. Moreover, we are quite unconscious of the various ambiguities which this theory alleges. The foregoing analysis of action-identification would not therefore

coincide with the findings of common-sense.⁴⁸

Yet, it is Elizabeth Anscombe, one of the initiators of this theory, who, with her observation that

where we are tempted to speak of 'different senses' of a word which is clearly not equivocal, we may infer that we are in fact pretty much in the dark about the character of the concept which it represents,⁴⁹

raises one of the more telling objections to it. For, as we have seen, the position which she adopts obliges her to regard why-questions, 'explanation', 'understanding', and a

host of related expressions as ambiguous. However, our common usage of such expressions is not equivocal; and Anscombe's account is dashed by her own hand. To avoid this, she might, of course, maintain that such evidence does not clearly demonstrate these expressions to be unambiguous. And in this, she might be right. Usually, very little can be established by appeals to ordinary language. How one interprets such evidence might well depend upon his prior commitments. Anscombe and other supporters of this position might well discover equivocation where the rest of us see none. But, if one were to admit such evidence, he must acknowledge the many cases in which it disconfirms this theory. - If, on the other hand, one were to deny that common usage disconfirms such a theory - as Anscombe presumably would - he could not seek support from that quarter. At best, such evidence would then be inconclusive. But acceptance of a hypothesis could hardly be justified on this

basis. Only confirmatory evidence would warrant that. If the foregoing is sound, however, Anscombe's position has no such evidential support. But then, neither would any of its competitors. How then could we justify accepting any position with respect to this matter? Now, it is precisely in such situations, i.e., where there is no evidence or where the evidence does not enable us to choose among the competing claims, that we customarily invoke a principle of parsimony.⁵⁰ By such a principle, a hypothesis which is able to accommodate all the relevant data with the postulation of the fewest entities is, ceteris paribus, preferable to its alternatives. Thus, an analysis of action-identification which can accommodate all the facts while avoiding the proliferation of senses involved in Anscombe's view would, by this principle, be rationally preferable and merit acceptance. Either Anscombe's position sins against common usage, or against Occam. And in either case, this is sufficient to warrant its dismissal.

But let us briefly reconsider the foregoing account of action-identification. Roughly stated, it amounts to saying that, in order to know which action occurred, one must know why that action occurred. But how could one possibly know why a certain action occurred unless he already knew which action it was? According to the condition of rational expectation, in order to know why a particular event occurred, i.e., know its explanation, one must know,

or have good reason to believe, that this event occurred.

And this presupposes his being able to distinguish that event from other kinds of phenomena and recognize it as an event of a particular kind. In order to make such distinctions, however, one requires criteria - criteria of identification. In that case, the conditions of action-identification introduced by the foregoing theory are contingent upon our already having a more fundamental criterion for the identification of actions. If we were not already able to recognize actions, we could never do so with the aid of the standards which this account provides. Rather than describe the criterion by means of which we identify actions, this programme is parasitic upon it, presupposing it while leaving it in complete obscurity. For, while [I_a] is most certainly true, its truth is contingent upon our having a more fundamental criterion of action-identification. If we had no criterion other than the one postulated by the preceding analysis, we could not even pose the appropriate why-questions, i.e., demand action-explanations much less answer them. Indeed, the distinction between action-explanations and explanations of other kinds could not even arise. Unless one already had criteria by means of which he and others could identify what he was speaking about, neither he nor anyone else could ever determine whether his why-questions concerned actions or not. Thus, if we do not already have a means of differentiating actions

from non-actions, and of recognizing actions as being of one type rather than another, our why-questions could never provide it. Without such criteria, there would be no basis in either language or logic for the introduction of a distinct "sense of the question 'Why?'" taking an essentially different kind of answer. Such distinctions could only be explained by the fact that we are already able to differentiate actions from other kinds of phenomena; they could not therefore be expected to explain this ability. But this is precisely the sort of explanation we are being given. Thus, although [I_a] is true, it cannot be accepted as the fundamental criterion of action-identification. [I_b], in contrast, is simply false. For, if we must already have identified the action in order to ask for or offer an explanation of it, it is then evident that actions are identified, although not explained. Contrary to the claims of those who espouse this position, "the mere record of what happened does not suffice to explain anything".⁵¹ Their theory leads us in a rather neat circle: action-identification, we are told, requires action-explanation. But what of action-explanation? It, in turn, presupposes action-identification. And so it goes. Only the obscurity of their presentation succeeds in concealing this fact. And in the end, nothing has been explained. Until this vicious cycle is broken, a theoretical understanding of human action remains quite out of reach.

Yet, despite such objections, the preceding analysis of action-identification would appear to be the sole alternative to equating action with overt behaviour. But this bodes well for neither science nor philosophy. For, if our objections are sound, this theory would not sustain an acceptable account of action-explanation. However, the only option, i.e., accepting overt behaviour as the basis for action-identification, is even more patently inadequate. Our investigation would appear to have led to an impasse. For, with the rebuttal of both these alternatives, what else remains? And, since an adequate account of action-explanation - and ultimately, of science in general - depends upon our analysis of action-identification, any hope we might have had in those regards must, it seems, be abandoned. But is our plight quite so desperate? Certainly, if these alternatives were exhaustive, it would be. And, as it is usually presented, this is indeed the case. Under the circumstances, it would then appear that all one can do is accept one of these alternatives and make the best of a bad job, or reject both and quietly sink into skepticism. Yet, neither of these would enable us to obtain an adequate conception of social science. This could only be achieved when the dilemma is breached.

It has already been argued that an adequate account of action-identification is necessary for an adequate theory of action-explanation. And many analyses of action-

explanation merit dismissal for their failure to satisfy this condition.⁵² It has also been maintained that how we identify a phenomenon will largely determine how that event is explained. So that an enquiry into the explanation of actions must begin with an investigation of the manner in which such occurrences are identified. Yet, where human action is concerned, explanation and identification stand in a particularly intimate relation.⁵³ For, as has been frequently observed, actions cannot be assimilated to mere behaviour. This, however, would appear to leave us with but one alternative, that is, acknowledgement that the identification of an action, as well as its explanation, involves an appeal to an agent's reasons for acting. To this extent, we must concur with the preceding analysis. Are we then obliged to adopt that position? According to those who subscribe to this view, because both action-identification and action-explanation require knowledge of motivating reasons, they must be recognized as indistinguishable, identical operations. And it is this assumption which leads to the difficulties which we have considered.

Now, in order to determine whether such obstacles might be avoided, we must reappraise the relationship which exists between these two operations. But a complete analysis of either must include a description of the relationships in which it stands. And to elucidate a relationship, one must comprehend the relation. A complete account

of action-identification will then require a general analysis of its relation to action-explanation. Similarly, a complete theory of action-explanation must clarify its relation to action-identification. And an understanding of their relationship calls for an understanding of both operations. For this reason, our discussion of action-identification and that of action-explanation must proceed simultaneously, one as the complement of the other. While our enquiry must begin with action-identification, it cannot remain there for long. With this in mind, I shall

commence my constructive programme with some general observations as to how the difficulties confronting other accounts of action-identification might be avoided and a broad outline of my approach to this subject. This will then serve as a basis for further investigation of action-explanation which will, in turn, permit refinement of our initial remarks. In this way, an adequate analysis of both action-identification and action-explanation, as well as the relation between them, might be obtained.

An adequate analysis of action-identification, it will be recalled, would be required to provide us with acceptable answers to $[I_1]$ and $[I_2]$. But, while this would be its primary task, such a theory would also be expected to accommodate all the other distinctions which we are accustomed to draw among actions. Thus, even where it is able to account for the fundamental discriminations, if a

theory could not, in addition, sustain the distinction between (i) voluntary and involuntary or (ii) intentional and nonintentional actions, it would be rendered suspect. One which was not so afflicted would, ceteris paribus, be rationally preferable. Yet, in the light of our discussion, the avoidance of the aforementioned dilemma, i.e., a theory's ability to preserve the distinction between (a) actions and mere behaviour, and between (b) action-identification and action-explanation, might be accepted as still another condition of adequacy for theories of action-identification. Failure to satisfy any of these requirements might then be taken as proof of a theory's inadequacy, while a theory which succeeds in fulfilling them all might be regarded as, at least, prima facie acceptable.⁵⁴

Now, we seem able to recognize phenomena as action rather than events of some other kind, even though we have absolutely no idea of what reasons might have motivated them. To do so, all that appears to be required is our realization that what occurred was the sort of thing that would be appropriately explained in terms of an agent's reason for acting, i.e., that it would be appropriately explained by means of an action-explanation. This, in effect, is the criterion which Elizabeth Anscombe proposes,⁵⁵ and it might serve as our point de départ. Thus, were I to enter a local church, I might realize that the behaviour of those whom I found inside could only be explained in terms of

their reasons for acting, and must therefore be recognized as actions, although I might remain completely ignorant of what reasons impelled them to behave in that manner.⁵⁶

Knowing that what was being observed was only explainable in terms of an agent's reasons and hence, that it was an action, would not then require knowledge of the particular reasons motivating the behaviour.

But we have already seen the difficulties which accompany this criterion. While it is undoubtedly true that all and only actions are explainable in terms of reasons, i.e., by means of action-explanations, this could not serve as a criterion of their identification. It may, nevertheless, suggest how such a criterion might be obtained. For, the correct answer to a why-question must not only provide a true description, it must describe just those factors which actually resulted in the event about which the question was posed. That is, the explanation of a phenomenon describes those conditions, events or states, which actually brought about the event being explained. If actions are only explainable in terms of reasons, it is therefore because only states of this kind could issue in actions. And recognizing that only such an explanation would be appropriate presupposes realization that only such states could bring about this event. That is, if one is to know that a particular occurrence is only explainable by means of reasons, i.e., an action-explanation, he must

already know that events of this kind could only issue from reasons. In lieu of the former, we might then propose

A is an action if, and only if, A occurred
as a result of an agent's reason

as our initial criterion of action-identification, i.e., as an answer to [I₁].⁵⁷ When we identify an event as an action even though we do not know the specific reason which motivated it, we might then be said to recognize it as the sort of thing which was brought about by an agent's reason.⁵⁸ Adopting this criterion would enable us to deny ~~the primacy of action-explanation and thereby avoid the~~ difficulties inherent in that claim while explaining the correlation between actions and action-explanations, i.e., the truth of [I₁]. If actions were identified on this basis, the manner in which we identify them would determine how we proceed in their explanation. And this is precisely how we would expect these operations to be related.

Yet, if reasons and only reasons of a particular kind bring about certain actions so that when asked why the latter occurred, a description of the former constitutes an explanation, such phenomena might be said to be nomologically related. That is, all and only events of the first kind result in events of the second. And, if appeals to reasons actually succeed in explaining actions, it would seem that phenomena of these sorts must be related

in this manner. But, if reasons and actions can be truly said to stand in such relations, and if we are able to recognize this fact, we might then revise the foregoing criterion as

A is an action if, and only if, A is nomologically related to some reason.

Given the natures of the entities in question, viz., reasons and actions, any lawful relation between them would be very different from those between other types of phenomena. And the assertions which describe such regularities might be expected to reflect such differences. They might, nevertheless, be recognized as lawful. Our knowledge that reasons and actions do, in fact, stand in such relations would not only enable us to explain how actions are identified, it would account for their explanation as well. By assuming that reasons and actions stand in lawful relations and that we are aware of this fact, we might then explain both operations. Our principal task is then to defend this assumption.

While we may, in this way, obtain the initial criterion of action-identification, viz., an adequate answer to [I₁], our programme is still incomplete. For, although we might, on this basis, succeed in differentiating actions from nonactions, we would still be unable to determine which action was performed. That is, we still require an answer to [I₂]. Here, it would seem, we are obliged to

penetrate to the 'thought-side' of an event identified as an action by the foregoing criterion, i.e., discover what reason actually motivated the agent to behave in this manner.⁵⁹ But we now confront the second horn of our dilemma. For, if both the identification and the explanation of an action involve an appeal to the agent's reason for performing that action, there would appear to be no way to distinguish between these operations. And failure to make this distinction encounters all the objections considered earlier.

The resolution of the quandary might well lie in Hume's observation that

where...truths...are indifferent, and beget no desire or aversion, they can have no influence on conduct and behaviour.⁶⁰

As he perceived it, if our judgements, beliefs and opinions, are to issue in behaviour, they must be accompanied by emotions. By the same token, if one is to act upon his feelings, his behaviour must be directed by some sort of conviction, knowledge or belief. Our judgements about objects and events in the world around us are intimately related to our feelings with respect to those same entities. And only where one's feelings are governed by his opinions could he be expected to initiate practical change. It cannot be denied that the very "notion of action...involves that of behaviour directed toward a goal".⁶¹ But, in order

that a goal succeed in directing one's behaviour, it must be his goal; he must actually want to achieve it. Without some opinion, however misguided, as to where or how such desires might be satisfied, these emotions would be little more than blind cravings without object or direction and, as such, they could hardly be admitted as desires. On the other hand, knowledge without the prod of emotion remains quite impotent, incapable of practical issue. To perform an action, it would then seem, an agent must experience the requisite desire as well as belief. In that case, however, one might expect this bifurcation to be reflected in our descriptions of reasons. And common practice would appear to support this conclusion. For, when offering reasons, we might allude to either the beliefs upon which an agent's behaviour was based, or to the desires which it was intended to satisfy. We may then conclude that there are two distinct kinds of reasons governing a person's performance of one and the same action; one concerns his knowledge, beliefs and opinions, the other, his emotions, wants and desires. Thus,

when someone does something for a reason...he can be characterized as (a) having some sort of pro-attitude toward actions of certain kinds, and (b) believing...that his action is of that kind.⁶²

When stating an agent's reason for acting, one might describe either his belief or his desire ('pro-attitude').

However, with this in hand, the solution to our problem would seem to be readily available. For, if one knew either an agent's beliefs concerning his behaviour, or the desire which impelled it, he would have sufficient information to identify what was done, to determine which specific action had been performed.⁶³ That is, knowledge of either the beliefs or the desires which resulted in an action would enable one to answer [I₂] and thereby satisfy the second condition of action-identification. But, if he should know only one of these factors while remaining quite ignorant of the other, his understanding of what happened would still be inadequate. Where he has only such information, "from the 'considerations' obvious to the investigator it is impossible to see the point of what was done".⁶⁴ While he might, on this basis, answer (E), (A) would still remain to be answered. And it is in precisely such circumstances that explanation is required. Only with knowledge of both the beliefs and the desires which motivated an action can we answer both of these questions. In this way, we might admit that an appeal to reasons is required for both the identification and the explanation of actions, while still preserving the distinction between action-identification and action-explanation.

Underlying our account is the assumption that

the analysis of meaningful behaviour must
allot a central role to the notion of a rule;
that all behaviour which is meaningful

(therefore all specifically human behaviour) is ipso facto rule-governed.⁶⁵

And to this extent, I would agree with the advocates of (M_2). If there are such rules, and if we are acquainted with them, actions might be identified as the sort of phenomena which are governed by these principles. On this basis, they could be distinguished from all other kinds of events. But, while many have espoused this general position,⁶⁶ their conception of these 'rules' differs radically from the one which I shall adopt. Advocates of such a view argue that it is precisely these rules which preclude the covering-law explanation of actions. According to them, these rules are essentially prescriptive, rather than descriptive, and would therefore sustain only a normative account of the phenomena which they govern.⁶⁷ Thus, explanations which employ such principles must also be evaluative. And it is on this point that we differ. For, I shall endeavour to cast these 'rules' in quite a different light, one in which they might be seen as descriptive, theoretical principles, i.e., as precisely those empirical laws required for the covering-law explanation of action. If my thesis is sound, those who advocate this analysis are quite right in maintaining that a system of 'rules' is required for both the explanation and identification of actions, and that such a system lies at the very foundation of social science. Where they err is in their characterization of these

principles. And it is this which exposes their position to criticism. By modifying their analysis, we might avoid these objections and obtain an adequate basis for social science.

Now, we have already considered how advocates of (M₂) are led to assimilate action-identification with action-explanation. Yet, despite their rejection of regulism, they too admit that actions are rule-governed phenomena, and that these 'rules' play an essential part in their explanation as well as their identification. But, having denied that the 'rules' in question could be descriptive (empirical), they have little choice but to regard them as normative principles. And, since they recognize them as essential elements in both action-explanation and action-identification, these operations must be regarded as primarily evaluative. Those who maintain this position would then claim "that what we want to know when we ask to have the action explained is in what way it was appropriate".⁶⁸ The assimilation is now complete. For, action-identification, action-explanation, and now action-evaluation are all seen as basically one and the same operation. We have already witnessed the obliteration of any distinction between (A) and (E). Now, we must stand by and watch that between (A) and

(F) 'Why was it appropriate (preferable, reasonable, rational, etc.) for J to A?',

[or alternatively, 'Why ought⁶⁹ J to have A-ed?']

suffers the same fate. To this, one might raise objections similar to those levelled at the earlier assimilation. And while we might admit that these questions are related, it seems highly unlikely that the relationship is one of identity. Both the methods of social scientists and the manners of common men legislate against this. And this would provide us with yet another reason for rejecting that position.

FOOTNOTES

¹ Donagan, Alan, "The Popper-Hempel Theory Reconsidered", in Philosophical Analysis and History, edited by William H. Dray, pg. 147.

² In Explanation and Human Action, A.R. Louch introduces the notion of 'ad hoc' explanations. But precisely how he intends this explanatory model to be interpreted remains rather obscure. With respect to it, Louch says

we have...a rather rich knowledge of human nature which can only be assimilated to the generality pattern of explanation by invoking artificial and ungainly hypotheses about which we are much less secure than we are about the particular cases the generalizations are invoked to guarantee (cf. ibid., pg. 3-4),

which suggests that such explanations involve no generalizations whatsoever. Yet, his characterization of this explanatory model remains quite unclear. And since Alan Donagan (cf. "The Popper-Hempel Theory Reconsidered") has provided an explicit analysis of an explanatory model involving no generalizations, I have assimilated this interpretation of Louch's 'ad hoc' explanation to Donagan's "explanation by 'the logic of the situation'", and assumed that it will be similar, if not identical.

Yet, Louch also says that "explanation of human action is moral explanation" (ibid., pg. 4) and suggests that it involves a generality which results from

the fact that men do share common moral habits and defects, and face the same problems in the business of living. This generality, however, should not be confused with theoretical generality, the mark of which is the capacity to predict new applications from the statement of the theory (ibid., pg. 231),

and that "contemplating conduct...requires...the technique of justification, warrant, or excuse to make them clear" (ibid., pg. 233-4). And such remarks indicate that Louch admits normative generalizations into his model of 'moral' explanation. But here again the account is rather vague. Whether we are being offered two distinct models of

explanation, or one under two different sobriquets is unclear. Assuming the former, Louch's account of 'moral' explanation might be assimilated to the Dravian model of which I speak below.

³ See preceding footnote.

⁴ See, "The Popper-Hempel Theory Reconsidered", in Philosophical Analysis and History, edited by William H. Dray, pp. 127-159.

⁵ See, William Dray, Laws and Explanation in History, pp. 118-137.

⁶ Donagan, op. cit., pg. 148.

⁷ Here, ' ϕ ' could represent either an object or a state-of-affairs. It might thus be replaced by 'that p', where 'p' is a statement describing a situation which J wants to realize.

⁸ C could not be a description of J's entire situation insofar as such a description includes all the statements which truly describe J. For, if that were the case, explanations of this sort could never be constructed. And this would be sufficient to warrant rejection of the programme. We might then assume that C includes only those aspects of J's situation, as he sees it, which he considers relevant to his achievement of ϕ . Characterizing J's situation for the purpose of explaining his action would then be relative to (i) what J desired, (ii) what he judged his general circumstances to be, and (iii) what, under conditions as he perceived them, he deemed to be relevant to the satisfaction of his desire.

⁹ Leach, James J., "The Logic of the Situation", pg. 264.

¹⁰ Donagan explicitly denies this contention. See, "The Popper-Hempel Theory Reconsidered", pg. 147.

¹¹ Hempel, Carl G., "Explanation in Science and in History", pg. 117.

¹² Donagan argues that only if the relation between explanans and explanandum is deductive would this condition be satisfied. ~~If the argument of the preceding paragraph is sound, it would then be sufficient to demonstrate the~~

failure of his account. However, if he were prepared to modify his position in the manner suggested below, he might still avoid this objection.

13 And this is tantamount to recognizing that Donagan fails to establish the logical independence of the deductive condition and the covering-law condition.

14 Leach, op. cit., pg. 267.

15 Dray, op. cit., pg. 131.

16 Ibid., pg. 126.

17 Peters, R.S., The Concept of Motivation, pg. 5.

18 Winch, Peter, The Idea of a Social Science, pg. 32.

19 Dray, op. cit., pg. 132. Here, the Kantian maxims come to mind. See, The Groundwork of the Metaphysics of Morals.

20 Ibid., pg. 132.

21 Ibid., pg. 122.

22 Rescher, Nicholas, Scientific Explanation, pg. 16.

23 In this connection, Dray says that

there will be particular cases in which we find it impossible to rationalize what was done, so that if an explanation is to be given at all it will have to be of another kind (ibid., pg. 138).

The "explanations of another kind" to which he refers are presumably covering-law explanations, for he goes on to say that "we give reasons if we can and turn to empirical laws if we must" (loc. cit.). But, it is difficult to reconcile this with his earlier claim "that this procedure is inappropriate in history" (ibid., pg. 118) and that "to understand a human action...it is necessary...to discover its 'thought-side'" (ibid., pg. 119). His account of the principles of action would appear to commit him to the view that all actions are explainable by rationalization.

24 Dray, op. cit., pg. 24.

25 Loc. cit.

26 Aune, Bruce, Knowledge, Mind, and Nature, pg. 239.

27 Essentially the same point might be made with respect to the prediction of actions. For, unless we have some way of confirming statements of the form

'J will A',

neither they nor the questions to which they are appropriate responses, viz., questions of the form

'What will J do?',

could be said to involve any exchange of information.

28 One who formulates his inquiry in this way would generally assume the event in question, i.e., what J did, to be an action. When one does not make this assumption, his question will usually take the form 'What happened to J?'. However, where the participant is identified as a person, unless one has definite contravening evidence, he will automatically assume that the behaviour in question was an action. Under such circumstances, a request for identification of behaviour will invariably take this form. But the answer will not necessarily be an action-description. For convenience, we might therefore disregard the implicit assumption that the event about which (E) is posed is an action.

29 With the possible exception of 'J did nothing'. But this might be construed as a case of refraining and described by a sentence of the form 'J refrained from ...-ing'. However, refraining might be regarded as an action and made to fit the general pattern.

30 The most we could assert on this basis would be that there is some action which J performed. Such an identification, however, is insufficient for the explanation of a particular event.

31 Cf. Nicomachean Ethics, Bk. III.

32 Making ethical distinctions among actions as well as their classification as either rational (reasonable) or irrational (unreasonable) is quite as venerable as those

cited here. And indeed, there is an intimate connection between these distinctions and those mentioned. But, because these distinctions raise issues beyond the scope of our present discussion, they will receive only passing attention.

33 Peters, op. cit., pg. 4.

34 Thus, unless otherwise indicated, 'action' as it occurs throughout this discussion will be understood as 'full-blooded, voluntary, intentional action'.

35 Dray, op. cit., pg. 123. The underlining here is mine.

36 Ibid., pg. 119.

37 Collingwood, R.G., The Idea of History, pg. 24.

38 Louch, A.R., Explanation and Human Action, pg. 28.

39 Melden, A.I., Free Action, pg. 56.

40 It was on this basis that traditional regulism was rejected.

41 Anscombe, G.E.M., Intention, pg. 83.

42 Ibid., pg. 9.

43 While we have already granted the sufficiency of this condition, our attack is directed against the claim that it is also necessary. And it is the commitment to the latter thesis that vitiates the programme.

44 Peters, op. cit., pg. 149.

45 Gallie, W.B., "Explanations in History and the Genetic Sciences", in Readings in the Philosophy of Science, edited by Baruch A. Brody, pg. 150. "The notion of intelligibility is systematically ambiguous... its sense varies systematically according to the particular context in which it is used" (cf. Winch, op. cit.; pg. 18).

46 We see, once again, that the points at issue in the regulist/anti-regulist controversy are far more basic than has been generally recognized.

47 This would, of course, preclude one's viewing the rationalization of actions as 'explanation-sketches'. Yet, advocates of this position have frequently maintained that "in...explanations in terms of a man's reasons for doing something there are...concealed assumptions" (Peters, *op. cit.*, pg. 4). The account of action-explanation offered by Dray, Winch, Louch, *et al.*, would require that explicit stated reasons be accompanied by various implicit assumptions in order that they explain actions. Their position would then appear to involve an inconsistency.

While it is not clear that they are aware of the point being made here, if it were brought to their attention, they might launder their doctrine by distinguishing between explanation proper and the grounds of explanation, and include these tacit assumptions in the latter rather than the former. Such presuppositions would not then be regarded as a part of the explanation as such, but rather as the prior conditions for any action-explanation. Only the explicit statements offered in rationalization would be recognized as explanatory. And this would appear to be Winch's position, although the obscurity of his presentation leaves this in some doubt.

48 Since the theory purports to explain how people actually identify actions, i.e., since it is offered as a descriptive theory, insofar as it fails to reflect such judgements, its theoretical adequacy is undermined.

49 See, Intention, pg. 1.

50 Here, we are appealing to what is commonly known as Occam's Razor which, in this context, might be interpreted as: A theory which is not obliged to assume that common expressions are equivocal, having different senses in different contexts, to explain all the relevant data is, ceteris paribus, better than a theory which is obliged to make this assumption in order to account for all the same phenomena.

51 Rescher, *op. cit.*, pg. 159. While action-explanation is sufficient for action-identification, it is not necessary.

52 Specifically, those which are impaled upon either horn of the aforementioned dilemma.

53 The intimacy of this relation is not, in my opinion, peculiar to human action. I believe that explanation and

identification stand in essentially the same relation in all other areas as they do in the social sciences. In social science, however, it is more apparent and more easily investigated. But essentially the same arguments offered in support of this thesis with respect to social science might be applied elsewhere. It is for this reason, I maintain, that we must look to the social sciences, rather than the natural sciences, for an adequate analysis of scientific procedure. "Analytic philosophers of science have hitherto derived their models of scientific explanation from the physical sciences" (cf. Arthur Pap, An Introduction to the Philosophy of Science, pg. 359). By restricting their inquiry in this manner, they have prevented the exhaustive analysis of scientific explanation and of science in general. And ultimately, it is this limited approach which has obstructed the development of an all-embracing theory of science. The basis of such a theory, I maintain, lies deep in the social sciences.

54 Satisfaction of these conditions might then be regarded as at least necessary, although perhaps not sufficient, for an acceptable theory of action-identification.

55 It might be observed here that Paul M. Churchland, whose initial analysis of action-explanation (cf. "The Logical Character of Action-Explanation", Philosophical Review, pp. 214-236) inspired and served as the basis for the present investigation, adopts a criterion of action-identification much like Anscombe's (cf. ibid., pg. 229). He, like Anscombe, takes action-explanation as primary and as the basis of action-identification.

56 My recognizing the building as a church would, of course, suggest what sort of reasons one might be expected to have for being there and hence, what kinds of action he is likely to perform. Indeed, it is usually recognition of such features that indicate what reasons an agent had for his behaviour. And it is just this sort of clue that overt behaviour provides. On this basis, we are usually able to identify and understand the actions which we observe.

It is when a person's context of behaviour offers no indication as to what reasons might have impelled his action, e.g. a man's kneeling on a busy street corner, that we have difficulty identifying what was done. Yet, even in such cases, if the agent is identified as a person, unless we have some evidence to the contrary, his behaviour will be recognized as an action.

57 Charles Taylor would appear to be making essentially the same point when he says that

the distinction between actions and non-actions hangs not just on the presence or absence of the corresponding intention, but on this intention or purpose having or not having a role in bringing about the behaviour (cf. The Explanation of Behaviour, pg. 33).

58 Notice that something might be the sort of thing that is brought about by an agent's reason, although that is not, in fact, what brought it about. This might enable us to accommodate the voluntary/involuntary distinction.

59 This is perhaps a forbidding way of stating the matter. For environmental indicators of the sort mentioned earlier, (see, footnote 56, above), provide us with generally reliable evidence of the sort of reasons motivating behaviour. Such evidence represents the inductive basis upon which we customarily identify and explain the behaviour which we observe.

60 Hume, David, Enquiry Concerning The Principles of Morals, pg. 25.

61 Taylor, op. cit., pg. 32.

62 Davidson, Donald; "Actions, Reasons, and Causes", in The Nature of Human Action, edited by Myles Brand, pg. 68.

63 This is something of an oversimplification. A more detailed analysis is provided in subsequent chapters.

64 Dray, op. cit., pg. 125.

65 Winch, op. cit., pg. 51-52.

66 Winch, Louch, Dray, Peters, Anscombe, et al.

67 At this point, one is sorely tempted to raise certain questions with respect to the distinction between evaluation and description, i.e., the perennial 'Is/Ought' controversy, upon which their case rests. Those who subscribe to this view would, of course, be committed to the preservation of this dichotomy. Attacking this thesis would then be another.

way of challenging their claim; one with which I would be in complete sympathy.

68 Dray, op. cit., pg. 124.

69 in one of its many senses.

CHAPTER FOUR

A Reconstruction

One of the objections levelled at the Dravian model, i.e., (M₂), concerned the specification of 'a situation of type C' as it occurs in that context. "The goal of such explanations", we are told, "is to show that what was done was the thing to have done for the reason given".¹ And this is to be achieved by showing the agent's reason for acting to be appropriate in his circumstances as these are described by 'C' in the foregoing expression. But not all, not even most, features of an individual's entire situation would contribute to this end. Even if we were able to know all the facts about a person, most of these would be of no use in showing that he acted with good reason. If one's actions are then to be seen as appropriate and thus explained according to this account, they must be seen in the light of just those aspects of the agent's (entire) situation which are relevant to their occurrence. The description of his situation designated as being of type C in the preceding formula, i.e., our characterization of the agent's situation for the purpose of rationalizing his action, must therefore include only those features of his entire situation.² But which are these? How, for the

purpose of explaining his action, are we to represent a person's situation? Without some criterion by means of which we might distinguish those aspects of a person's situation which are relevant to his behaviour and hence, to be included in C, from those which are not, the distinction between 'valid' explanatory principles of action and their nonexplanatory imitators could never be drawn. In that case, however, the distinction between explanatory and non-explanatory arguments of this form would also collapse. That all statements which take the form of principles of action are, in fact, valid principles is quite indefensible, as is the claim that all arguments of the form (M_2) are explanatorily adequate. Unless inadmissible instances can be distinguished from their legitimate counterparts, the entire programme is jeopardized. And by neglecting to provide grounds for such distinctions, (M_2) 's defenders have vitiated their analysis. To avoid this objection, one would be obliged to offer some indication of those features of a person's (entire) situation to be included in its description, i.e., in our characterization of 'a situation of type Q' as it occurs in (M_2) , for the purpose of rationalizing his action. That is, we require some means of determining those aspects of an agent's (entire) situation which are relevant to his behaviour.

Now, it might be observed that the truth of (M_2) 's premisses, as they were presented above, does not even

guarantee that J's A-ing was the reasonable thing for him to do under the circumstances; the explanans of this model would not even warrant our acceptance of (D). For it might well be the case - and frequently is - that, although an agent is known to be in a certain situation and that, under such circumstances, a certain action is considered appropriate, his acting in that way might still be quite unreasonable. This would be the case when it was known that the agent in question did not recognize his situation for what it was and believed his circumstances to be such that acting in this manner would be either inappropriate or irrelevant. Thus, if, in explanation of Jones' taking his umbrella to the city, one were told that it was raining there, he is unlikely to find this acceptable, if he knew that Jones believed that the weather in the city was, and would continue to be, sunny and warm. While a person's actual situation will, of course, play some part in determining his actions, for the purpose of explaining what he does, it is more important to know what he believes his situation to be. Alan Donagan's contention that "what a man does depends on the situation as he thinks it to be"³ would then appear to be essentially correct. In order to rationalize his actions, our description of an agent's situation, i.e., of 'a situation of type C', must therefore make reference to conditions as the agent himself believes them to be, whether or not his beliefs coincide with the

facts.⁴ This might be captured by saying that, in order that reference to an agent's situation assists in rationalizing his action, it must include the agent's beliefs with respect to the prevailing conditions, i.e., such a description of the agent's situation must include an assertion to the effect that

(1) 'J believes that μ ',

where ' μ ' stands for a set (one or more) of empirical statements any of which may be either true or false. And to that extent, if we are to explain someone's action, we must "think...their thoughts over again and sit...in the position not of the observer but of the doer of the action".⁵

But this would only succeed in reintroducing the original problem at another level. For, we are now obliged to determine which of an agent's beliefs concerning his situation are relevant to his behaviour, i.e., which of these beliefs will be included in the set μ . We have many beliefs about our situations. Yet these do not all issue in actions. Knowing some of an agent's beliefs will assist us to understand what he did, while knowing others will not. Thus, knowing that Jones believed it to be raining in the city would be regarded as explanatorily relevant to his action, while knowing of his belief that he had eggs for breakfast would not. Although it would be necessary for an agent to accept an assertion as a true description of his situation, this would not be sufficient to warrant

our recognizing that statement as explanatorily relevant to his action. If knowledge of a certain factual claim, μ , is to contribute to an understanding of an action, it is not therefore enough for the investigator to know that the agent accepted it as true; he must also see it as, in some sense, relevant to the agent's performance of the action. He must perceive some link between the agent's having that belief and his behaviour. While Smith might truly believe that he is seated in a boat in the middle of a lake with his fishing gear beside him, this leaves us none the wiser as to why he scratched his nose. And our immediate problem is to identify the link between an agent's beliefs and his actions. That is, we must now consider the question: What conditions must an assertion which an agent accepts as truly describing his circumstances satisfy in order that it be recognized as relevant to the explanation (and/or the performance) of his action?

Now, even if Jones knew of his impending trip to the city and of weather conditions there, unless he himself also saw taking an umbrella as an appropriate response to such information, his having such knowledge could not assist in explaining his action. If, for example, it were known that Jones has absolutely no conception of the conventional use of umbrellas, what he knew would not account for what he did. While taking an umbrella would still be a reasonable thing for someone to do, i.e., one in similar circum-

stances and having the same information as Jones, and who, in addition, recognizes this action as an appropriate form of behaviour, it would not be considered a reasonable thing for Jones to do. Stating Jones' beliefs about his situation, i.e., a statement of form (1), in the light of such knowledge, would not be accepted as his reason for taking an umbrella. It could not have brought about his action and thus, would not succeed in explaining it. What distinguishes those beliefs an agent has about his situation which assist in the rationalization of his action, i.e., the members of μ , from those which do not is that the agent himself believes his action to be appropriate or reasonable in the light of the former, while he has no such belief with respect to the latter. And it is on this basis that we might distinguish the constituents of μ from all other beliefs an agent might have. In order that (1) promote an understanding of J's behaviour, we would then be required to assume that

- (a) 'J believes that, under conditions μ ,
A-ing is an appropriate thing to do'

was also true.

Here, (a)'s resemblance to the Dravian principle of action, i.e., premiss (ii) of (M_2) , might be observed. But it is perhaps even more noteworthy in those respects in which it differs from such principles. In the first place, since (a) is purely descriptive, it is more akin to the

principle, (ii)*, of (M_3) than that of (M_2) . But even here, there is a significant difference. For our present investigation was intended to determine the conditions of an agent's actual situation, i.e., the constituents of 'a situation of type C', which must be known in order that we might explain his behaviour in the manner described by Dray. In contrast, 'conditions μ ', does not necessarily refer to the actual circumstances of an agent, but rather a subset of conditions as he believes them to be, which may or may not coincide with the actual state-of-affairs. Rather than a Dravian principle of action, (a) would then be one of the requirements which must be included, either implicitly or explicitly, in a true description of the agent's situation in order that making reference to his situation assist in rationalizing his action according to Dray's analysis.

Insofar as an agent believes that his acting in a particular way would be appropriate or reasonable in the light of his situation as he perceives it, his beliefs about his circumstances are likely to result in his performance of that action and our knowledge of his having those beliefs would promote an understanding of his behaving in that manner. Yet, if one is to recognize something as appropriate, he must have some criterion by which he makes such judgements. And, until the standard by which an agent's beliefs might be said to render his action appropriate has been specified, no clear distinction between

those of his beliefs which are explanatorily relevant to his action, i.e., those which are included in μ , and those which are not, can be drawn.⁶ The provision of such a criterion is therefore essential to our programme.⁷ But where is it to be found? At this point, it might be recalled that "behaviour is directed to some goal".⁷ That is, actions are done for a purpose. But, if actions are indeed goal-directed, i.e., performed so as to achieve a specific objective, then an agent might be said to judge his action as reasonable or appropriate if, under conditions as he perceives them, he believes that acting in this manner would result in or promote his achievement of his intended objective. Only those aspects of a person's situation as he perceives it, i.e., his beliefs about his circumstances, which he believes would make his performance of a particular action a means of realizing his intention, would then be explanatorily relevant to his behaviour and hence, included in μ . All his other beliefs would be irrelevant to his performance of that action. An action's being appropriate or reasonable in the light of circumstances as the agent perceives them would then amount to its being recognized by the agent as a means of achieving his goal under conditions as he believes them to be. Only those beliefs with respect to his situation which the agent actually took into account, regarded as having some bearing upon how his intentions might be satisfied, and hence,

influenced his decision as to how he would behave, would then be explanatorily relevant to his action. With this in hand, (a) might now be recast as

- (2) 'J believes that, under conditions μ ,
A-ing would result in ϕ ,

where ' ϕ ' denotes J's objective, goal, or purpose. And, unless this assertion is assumed to be true, no statement of form (1) could promote an understanding of J's behaviour.

While an agent might have such a belief, it, like any of his other beliefs, might be mistaken. That is, under conditions μ , A-ing may not result in ϕ . One conscious of the fact that he is wearing a shocking-pink shirt might think that donning fluorescent-green trousers would result in a pleasing colour co-ordination. However, this combination might not have the anticipated effect. Nevertheless, knowing that the agent believed it would help us to understand why he put on trousers of that particular hue. It is the fact that the agent made this judgement, and not its literal truth or falsehood, that results in his behaviour and thus, would assist in its explanation. For the purpose of explaining his action, all that is required is the agent's having such a belief, i.e. that (2) be true; it is not necessary that what he believes also be true. Any feature of an agent's situation as he perceives it, no matter how bizarre, might assist in the explanation of his action, i.e., be included in μ , if, in addition, the agent

believes that, because of it, his acting in a particular manner would realize his intention. Thus, knowing of Smith's belief that scratching his nose in a situation of the sort described earlier results in good fishing would promote our understanding of his action. If, on the other hand, we knew that an agent had no such belief with respect to some facet of his situation (as he perceives it), that feature could then play no part in the explanation of his behaviour. If (1) is to be admitted as a reason for J's A-ing, (2) must also be known or assumed.

When offering reasons in explanation of an action, we frequently make reference to the agent's beliefs about his situation, i.e., make statements of form (1). Thus, reference to Jones' knowledge of weather conditions in the city would generally be considered sufficient to explain his taking an umbrella. But this could only be the case on the assumption of the appropriate assertion of form (2). In order that (1) be recognized as a reason for acting, (2) must be assumed. And, when offered as a reason, this is usually the form a description of an agent's beliefs will take. But there are occasions when all of an agent's beliefs about his situation are known and yet, because we are unable to establish which are related to his action and what this relation consists in, what he did remains unexplained. Such cases arise where a person has unusual beliefs about the methods by which certain ends might be

realized in a particular situation. Smith's peculiar circumstances, the respective functions of (1) and (2) would be reversed: (2) would be offered as the explicit reason for the action, while (1) remains as a tacit assumption. Nevertheless, both continue to be necessary in order that either be an acceptable reason. Such a reversal might be required where the performer under consideration has mystical or occult objectives. It might also occur when a psychologist explains the behaviour of his patient, an anthropologist explains the behaviour of members of an alien society, or historians explain the actions of our ancestors. Depending upon which is more apparent, either (1) or (2) might therefore be offered as a reason for acting. But, because people generally have much the same notions about what sort of behaviour will produce what results under any given set of conditions, when a person's beliefs are offered as a reason for his actions, the assertions will usually be of form (1).

But even where both (1) and (2) are known, one might still fail to rationalize J's Acting. These conditions would not then provide us with an adequate description of the agent's situation for the purpose of explaining his action, i.e. a complete analysis of 'a situation of type C' as it occurs in (M_2) . The reason for this failure is not far to seek. For, as has frequently been observed, actions are goal-directed. Only knowledge of the agent's goal,

purpose, or intention would enable us to determine which of the various alternative statements of forms (1) and (2) - all of which might be true - are explanatorily relevant to his action and would therefore be acceptable as the reason for his behaviour. Without knowledge of what the agent wanted to achieve, we could not establish whether any of his beliefs stand in the requisite relation to his action and hence, which, if any, assist in its explanation. Thus, unless we knew that Smith wanted to catch fish, knowledge of his peculiar belief as to how this might be accomplished would not contribute to our understanding of his behaviour. "Actions are explained in terms of the ends for which they are performed."⁸ Reference to such factors must therefore be included in our description of an agent's situation, if it is to assist in the explanation of his action.

Now, it seems that almost anything, an object or state-of-affairs,⁹ whether actual or imaginary might be the goal or objective of a person's behaviour. But, if they are to result in distinct pieces of behaviour, they too must be distinct. That is, they must, at least, be describable. Vague cravings which admit of no description could never be the objectives of action. Moreover, in order that an agent act for a certain end, i.e., perform an action, he himself must have identified the intended goal of his behaviour. It must therefore be at least possible for him

to provide a description of it. Moreover, unless the agent himself believed that there was some possibility, however slight, of his achieving a particular objective through his endeavours, it could never be the goal of his action. Thus, one who accepts common astronomical beliefs could never act with the intention of bringing about an eclipse of the sun. And, in order that it be recognized as the goal, intention, or purpose of human action, an entity would be required to satisfy these general requirements. But,

perhaps the most prominent characteristic of human goals is their being the objects of human desire, i.e., that which people want to obtain, achieve, realize, or acquire.

Insofar as an object (or state-of-affairs) has or might be desired by someone, it might be regarded as a possible goal of human activity. And anything which could be construed as desirable to someone would be a goal in this sense. On this basis, however, one could not explain what was actually done. That would require knowledge of what the agent actually desired, i.e., of the specific goals which governed his behaviour. For, although an agent might

acknowledge something to be desirable, unless he himself actually desires it, it could provide him with absolutely no reason for acting. Thus, even though one knows that an agent believes himself to be in certain circumstances and that, under those conditions, acting in the way he did would have certain results, if he knew, in addition, that the agent was either indifferent or averse to such conse-

quences of his action, and hence, did not want to achieve them, knowledge of the agent's beliefs could not represent his action as appropriate or reasonable. If we knew that Jones was indifferent to or enjoyed the prospect of being rained upon and getting wet, all our previous information would fail to explain his action. Similarly, knowledge that Smith had no desire to catch fish would expose our apparent comprehension of his behaviour as illusory. Thus, if anything is to be recognized as the goal or purpose of an action, the agent himself must actually want to achieve it by means of that action. In order that either (1) or (2) assist in the explanation of J's A-ing,

(3) 'J wants ϕ ',¹⁰

must therefore be true as well. For the purpose of explaining his action, the description of the agent's situation must then include an assertion of this form in addition to statements of forms (1) and (2).

When the Dravian model, i.e., (M_2), was introduced, we were told that the agent's beliefs, purposes, and principles must be taken into account when explaining his action.¹¹ Yet, precisely how such considerations were to be accommodated was never revealed. And our efforts, thus far, were directed toward elucidating such issues. But, that one believes or intends something is, presumably, a factual matter. And, if this model is to accommodate such

factors, it would have to do so by including them in the description of the agent's situation, i.e., of 'a situation of type C', as it occurs in (M_2) . As descriptions of the agent's beliefs and intentions, conditions (1), (2), and (3) must therefore be included in the description of his situation. Only if all three are satisfied could any one of them be a reason for and hence, explanatory of the agent's behaviour. Should any one of them be false, none of the remainder would be explanatorily relevant to the action. In this way, advocates of (M_2) would, presumably, accommodate the beliefs, intentions, and principles of an agent in their explanation of his action. But, it must also be observed that these three conditions closely resemble the premisses of (M_1) , the Donagan model. Thus far, our analysis would then seem to capture the essential features of both these alternatives. On this basis, (M_2) might be provisionally reconstructed as

- (M_4)
- (i) J was in a situation where
 - (1) J believes that μ , and
 - (2) J believes that, under conditions μ , A-ing would result in ϕ , and
 - (3) J wants ϕ .
 - (ii) Where someone (1) believes that μ , and (2) that, under conditions μ , A-ing would result in ϕ , and (3) wants ϕ , the appropriate thing for him to do is A.

[It was therefore appropriate that]

(B) J A-ed.

Any one of the conditions (1) through (3) might be offered as the (explicit) reason for an action. But, in order that it be accepted as explanatorily relevant to the behaviour in question, all three must be known (or assumed) to be true. When one gives reasons for his actions, he does not state all the motives and beliefs which governed them. For,

if you tell me you are easing the jib because you think that will stop the main from backing, I don't need to be told that you want to stop the main from backing; and if you say you are biting your thumb at me because you want to insult me, there is no point in adding that you think that by biting your thumb at me you will insult me.¹²

As a rule, it is sufficient to state only one of these conditions when offering a reason in explanation of actions. The other conditions which must be satisfied in order that the one explicitly stated succeed in explaining the behaviour accompany it as implicit assumptions. Thus, when asked why he is taking his umbrella to the city, Jones or his wife may simply reply that it's raining there.¹³ And this would generally be accepted as an adequate explanation. But this could only be the case if the other conditions were assumed by both the one offering the explanation and his auditor.

"An explanation of an action in terms of a motive, or desire, always presupposes that the agent has certain relevant beliefs."¹⁴ Similarly, an explanation in terms of

the agent's beliefs presupposes that he had certain relevant desires. And the reasons with which we explain actions may describe either the agent's beliefs or his desires. Statements taking the form of any one of the foregoing conditions (1) through (3) can serve as explanatory reasons. But, in order that such a statement explain an action and thereby merit recognition as the reason for which it was performed, appropriate assertions taking the forms of both the other two conditions must be tacitly assumed. For, if one were ignorant, or assumed the denial, of any of these three conditions, neither of those which remain would render J's A-ing comprehensible. Neither could then be recognized as the reason for his action. Yet, even where we were not previously aware of the assumptions which accompany a particular reason, statements offered as explanatory reasons generally provide a good indication of what they must be. And that a particular assertion was intended to be explanatory, i.e., to describe the reason for a particular action, is usually quite apparent in the context of its utterance. Thus, only where it is accompanied by such tacit assumptions would an explicit statement taking the form of any one of these conditions be recognized as the reason for an action. We might then say that

Any one of the conditions (1), (2), or (3) is the (explicit) reason for J's A-ing, only if all the remaining members of the set are (at least assumed to be) true.

Which of these is then offered as the reason for J's A-ing, i.e., as the explicit answer to (A), will then depend upon what the inquirer is assumed to know. Now, as was argued earlier, a precondition of action-explanation is action-identification. It was also suggested that, in order to identify an action as an action of a specific kind so that it might be explained, one would have to know either the beliefs or the desire underlying it. Elaborating upon this suggestion, we might now say that knowledge of any one of the conditions (1) through (3) would enable such an identification of an action. And how one identified it would reveal with which of these governing conditions he was familiar.¹⁵ From the manner in which one identifies a particular action, we might then determine what would be required in order to explain it to him. Should he then require an explanation, we would state one of the remaining conditions. The one with which he was unacquainted and which, in conjunction with what he already knew, rendered the event comprehensible to him, would then be recognized as the reason for what was done.

As presented above, reasons offered in explanation of actions are enthymemes or explanation-sketches which, if fully stated, would take the form of (M₄). This model, however, is little more than an elucidation of the Dravian, (M₂), so as to accommodate the insights of the Donagan, (M₁), analysis. No fundamental changes have been introduced.

But our characterization of an agent's situation for the purpose of explaining his action is not yet complete. For even if one were to satisfy all three of the foregoing conditions, they might still be explanatorily irrelevant to his action. In that case, however, no member of this set would be the reason for which it was done. To illustrate this, we might reconsider Smith who would appear to satisfy all three of the foregoing conditions and whose action seems comprehensible on this basis. But now, if we were to discover that, in addition to his desire to catch fish, immediately before scratching, Smith had had an overwhelming desire to relieve an itch in his nose, our whole perspective would alter. None of the conditions previously cited would now seem relevant to his performance. While they might well be true, they would no longer appear to explain Smith's action. One might expect that, if conditions (1) through (3) are satisfied, J would be inclined to A. But inclinations to perform actions are not themselves actions.

To feel an impulse to do A is not necessarily to do, or to be followed by doing A; some impulses are consciously suppressed, others are too weak to move us.¹⁶

Not infrequently, one wants something, i.e., (3) is true, and thus feels inclined to act so as to achieve it. But seeing that, under the circumstances, acting in this way would jeopardize some other objective of which he is also desirous, he resists his initial inclination. Alterna-

tively, there are those who, although they want the benefits that diligence and application bring, are more attracted to the satisfaction of momentary whims. Thus, even where the previous conditions were known to have been satisfied, if, in addition, it were known that J had a desire for ψ ¹⁷ which exceeded his desire for ϕ and that A-ing would not contribute to his realizing that objective, our knowledge of the previous conditions would no longer succeed in rationalizing J's A-ing.

A comparable situation arises where an individual is known to have conflicting desires of equal intensity. If, in addition to what we already know of Jones' plight, we also knew that he disliked carrying an umbrella as much as he disliked getting wet and that he wanted to avoid both with equal intensity, the question of why he took an umbrella would remain unanswered. Under such circumstances, Jones might be said to lack sufficient reason for his behaviour. For, on the basis of what we know, we would be equally justified in expecting him to refrain from performing this action. And we would still be left wondering why he chose one alternative rather than the other. It might then be concluded that knowing an agent's desire can only assist in rationalizing his action, if it is also known (or assumed) that he has no desire which is equal to or exceeds the one invoked for this purpose.

At any given time, we would appear to have a variety

of different wants. These might range in intensity from vague preferences to compelling obsession. And that a person will act upon his most compelling desire, i.e., act so as to achieve that which he wants most, seems indisputable. "Our purpose", it might then be said, "is simply the desire that is dominating our conduct".¹⁸ Merely knowing that an agent had a certain desire would not then be sufficient for the explanation of his action; we would also be obliged to know (or assume) that this desire exceeded all others which he might have had at the time. In order that any of the previous conditions assist in the explanation of an action,

- (4) 'J has no want (or set of wants) which either equals or exceeds his want for ϕ '

is yet another condition which the agent's situation must satisfy.

But wants and beliefs, it must be observed, are mutable and prone to change with time. What one believes today, he may not believe tomorrow. And what he presently feels as an irresistible desire, he may not have previously wanted and may not want, or may feel as only a slight inclination in future. In order that certain beliefs and desires result in an agent's behaviour and that reference to them assist in explaining that action, however, it is not necessary that these states endure for extended periods of time. All that is required is that the agent

undergo them at the time of, or immediately prior to, his action. Thus, at different times, J might have many wants which exceed his want for ϕ . But, if any of the foregoing conditions, (1) through (4), are to assist in the explanation of his A-ing, we must assume that, at least at the time of his performing this action, or immediately prior - although not necessarily only at that time - his desire for ϕ exceeded all others which he occurrently had. Neither must we discount ephemeral, compulsive urges. That is, one might suddenly experience an overwhelming desire which results in his behaving in a particular manner, and which occurs on only that one occasion. And such desires too result in actions. But, if they are to do so, the agent must experience them at the time of, or immediately prior to, his performance of the action. Both conditions (3) and (4) might then be supplemented with tacit temporal restrictions. But our beliefs are also subject to change. One has different beliefs at different times. And it is by acting upon our beliefs that we achieve such revisions. Through action, we obtain new beliefs and determine which of those we already hold merit abandonment. The consequences of one's behaviour might cause him to reject those beliefs which impelled his acting as he did. But, if an agent's having a particular belief is to assist in the explanation of his behaviour, at the time he performed the action, or immediately prior, he must be assumed to hold

that belief. Such temporal restrictions would then apply to conditions (1) and (2) as well. And the same might be said of all the subsequent conditions which we might obtain. We might therefore assume that each of these conditions is tacitly accompanied by the phrase 'at t', where 't' designates the time at which the action to be explained, i.e., J's A-ing, occurred, or that which immediately preceded it.

Individually, each of the foregoing conditions, (1) through (4), would then be necessary for action-explanation. But are they jointly sufficient, i.e., if one knew that each of these assertions truly described J, would he then know why J A-ed? A moment's reflection would indicate that our response must be negative. For one can easily imagine circumstances in which, although he knows all these conditions, he would still not understand J's behaviour. This would occur when he knew, in addition, that J believed some action other than A-ing, say B-ing, to be a better way of achieving his objective, ϕ . Thus, if it were known that, under conditions as described earlier, Jones believed taking a raincoat was preferable to taking an umbrella, we would still be left wondering why he did the latter.¹⁹ In the light of such knowledge, it would be reasonable to expect Jones to take his raincoat rather than an umbrella. On this basis, one would expect J to B rather than A. Yet, it is Jones' taking an umbrella, J's A-ing, that is to be explained and was, presumably, the

action performed. Thus, we would still be left with the question 'Why did J A?'

Precisely the same question arises where an agent is known to regard two or more actions as equally good ways of achieving his goal. For, if it were known that J considered A-ing and B-ing to be equally acceptable methods of obtaining ϕ ; knowledge of conditions (1) through (4) would make it reasonable to expect him to do either A or B. But we would still be unable to account for his doing one rather than the other. It would be no more reasonable to expect J's A-ing than it would to expect his B-ing. Thus, where it is known that a person regards several actions as equally good ways of fulfilling his desire, knowledge of conditions (1) through (4) might make it reasonable to expect his performance of one of these actions. Within this set, however, we would have no reason to anticipate his doing one above any of the others. But in that case, these conditions would not satisfy the condition of rational expectation and could not therefore succeed in explaining what was done. It was, after all, the occurrence of a particular action, i.e., J's A-ing, that was to be explained. Knowing that it would be reasonable for a person to perform some member of a set of alternative actions still leaves us wondering as to why he chose the one he did. To answer this question and thereby enable explanation of a particular action, we would therefore require yet another condition, viz.,

(5). 'J believes that there is no action, under conditions μ , which is as good or better, as a means of achieving ϕ , than A-ing'.

In addition to his belief that, under conditions as described by μ , A-ing will result in ϕ , J might well have similar beliefs with respect to other actions, e.g., B-ing, C-ing, etc. This set of beliefs, in conjunction with his satisfaction of conditions (1) through (4) might be expected to determine the set from which J would choose his behaviour. Should this set be empty, (2) would be unsatisfied, J's behaviour could not then be explained in terms of his desire for ϕ . If, on the other hand, this set contained more than one member - as is frequently the case - conditions (1) through (4) could only succeed in explaining what J did with the assistance of (5). Under such circumstances, the agent would be required to make a choice. And an explanation of his action would be required to accommodate this. However, "to choose is...to pick out from among many things what appears best".²⁰ His choice might then be explained by assuming that the action which he ultimately performed was the one which he considered to be the best means of achieving his objective among the available alternatives. And it is this which (5) is intended to convey. But since, by 'choosing', we would seem to mean little more than 'picking out what appears best', where we know that the agent was confronted with such a set of alternatives, (5) would amount to an acknowledge-

ment of his making a choice.

Like any of his other beliefs, one's beliefs as to the best way of realizing his ends might well be mistaken. Just as with other beliefs, however, its contribution to the explanation of an action would not be impaired by such an error. Whether his belief is true or false, the agent's having it might, in either case, assist in explaining what he did. And where the set of alternative actions available to the agent contains only one member, i.e., where only one sentence of form (2) is true, it would automatically satisfy this principle of choice and thereby qualify as the best means of achieving the agent's goal.

But, while we might all agree that "men will always do...what seems best",²¹ unless we can provide some criterion by which such judgements are made, i.e., some way of determining when one action is a better means to a particular end than another, (5) remains quite unenlightening. If this condition is then to assist in the explanation of actions, we would then require an adequate standard of preference for actions. Now, insofar as an action is explainable on the Dravian account, (M₂), that action can be shown to be the reasonable and/or appropriate thing for a person to do under the circumstances. But, if an action is demonstrably reasonable, and if an agent's behaving in that manner results from his choosing it from a set of alternatives, his choice might also be

expected to satisfy a standard of appropriateness. Should the manner in which he makes such decisions fail to satisfy such a standard, the action to which it gives rise must as well. In that case, however, the agent's behaviour could not be explained on this basis. The criterion which we are seeking would then amount to a standard of reasonable (rational) choice and might be represented as an answer to

Under what conditions would J's preference of A to B, both of which he believes would promote his attainment of ϕ , be recognized as reasonable and/or appropriate, and under what conditions would it not be so recognized?

An exhaustive answer to this question is beyond the scope of the present discussion. Yet, there is a restricted notion that would fulfill our requirements. For, as they are commonly recognized, actions are thought to be nothing more than the means by which people endeavour to satisfy their predominant desires. If we are then to evaluate different actions having the same outcome so as to determine which among them is best and thereby justify one's decision to behave in that manner, we must judge them according to their merits as means to that end. And when seen from this perspective, there could be but one basis for such judgements, i.e., an action's relative efficacy in producing the intended result. That action which is most likely to achieve the agent's objective and to do so in the most direct and efficient manner must then

be recognized as the best of the available alternatives. Insofar as one can be truly said to choose his behaviour, it is therefore that action which he believes to be the most direct and efficient means to his goal which he performs. When a person behaves reasonably and hence, in a manner susceptible to rationalization, he might then be assumed to proceed "toward his goal in a way which, to the best of his knowledge, uses the least possible input of scarce resources per unit valued output".²² In short, he endeavours to achieve his objective in the most efficient manner possible. Should J fail to seek satisfaction of his desire for ϕ in the most effective and direct way available to him, we would be inclined to doubt his desire for ϕ , or perhaps that he desired it above all else, i.e., we are likely to deny that either condition (3) or (4) was satisfied. Alternatively, we might regard his behaviour as unreasonable. And in neither case could the occurrence be explained by appealing to J's desire for ϕ . If a person's behaviour is to admit rationalization, we must therefore assume that he chose it as the best of the available alternatives and, as such, as the most efficient means of satisfying his predominant desire, i.e., the one which satisfies (4). In this way, we might obtain the criterion which we require. A person's belief as to the relative efficiency of the various alternatives available to him as means to his goal would then serve as our standard of reasonable

choice. According to it, J would regard A-ing as better than B-ing, only if he believed A-ing to be a more efficient means of achieving ϕ than B-ing; he would regard A-ing as the best action in the situation, only if he believed A-ing to be more efficient as a means to ϕ , than any of the available alternatives.²³ But, unless one actually performs the action which he believes best, he could not be properly said to have chosen it. Once again, his behaviour could not be explained in terms of his reasons. If one is then to choose according to this criterion, his behaviour must reflect his choice. And on this basis, condition (5) would enable us to account for a person's choice of action.

At this point, some will argue that a person's behaviour might be explained in terms of his reasons and his decision to behave in that manner might be quite reasonable even though his action neither is nor is believed to be the most efficient way of satisfying his desire. Efficiency, it will be maintained, is not even necessary, much less sufficient, for the rational choice of behaviour. For, one might quite reasonably choose to achieve his objective in one way rather than another because he believes that behaving in that manner promises to be more enjoyable, aesthetic, ethical, or pleasing to God. Such considerations might well convince him to perform a particular piece of behaviour even though he knows that it is not the most

efficient way of achieving his goal. Those who espouse such a view would therefore maintain that, although J knows that B-ing would be a more efficient way of satisfying his desire for ϕ , he might still find A-ing preferable by some other criterion, e.g., hedonistic, aesthetic, ethical, religious, etc. And his deciding to A on this basis must be acknowledged as a rational choice. Taking this line, however, conflates means and ends. For, under such circumstances, rather than adopt an alternative criterion, J would appear to want something, ψ , in addition to ϕ , i.e., enjoyment, or certain aesthetic, ethical or religious effects, and his desire for both exceeds his desire for ϕ alone. While A-ing might be a less efficient means of achieving the latter, its greater efficacy in the satisfaction of this entire set would justify its performance. But in that case, our contention that an action's relative efficiency as a means to the agent's goal is the basis for its rational choice would remain quite unimpaired. This would continue to be the grounds upon which we establish the best of any set of alternative actions. One who denies this would appear to regard human action as something more than the means by which people endeavour to achieve their goals. To support his position, he would then be obliged to offer some account of what more they could be. But, until such an analysis has been provided, relative efficiency would remain unchallenged as the

criterion of rational choice.

Yet, there would appear to be cases where we are denied such a standard and with it, the possibility of explaining what was done. For, one frequently encounters situations in which, although he wants a certain objective, he does not believe that any of the alternatives available to him would be more effective than any other as a means to that end. Nevertheless, he acts upon one of the alternatives. Under such conditions, it would seem that one could have absolutely no reason for doing one thing rather than another. Rationalizing what was done would therefore be quite impossible. Indeed, that it is an action at all might well be questioned. For, unless one has some grounds for behaving in one way rather than another, he could not be said to have a reason for what he did. His behaviour could not then result from his reasons and would therefore fail our first condition of action-identification. But, while such anomalies represent a very real theoretical possibility, it is not clear that they actually arise as a practical problem. For, although we are often obliged to choose among different methods, none of which seems preferable by the foregoing criterion, such choices - and the behaviour to which they give rise - might still be defended by reasons. This would suggest that the problem resides with our formulation of the criterion rather than the decisions involved. But how is it to be eliminated?

As an initial step toward a solution, we might recall that, at any particular time, an agent is subject to an indefinite number of different desires, i.e., an indefinite set of statements of form (3) truly describe him, of varying intensity. Adopting a distinction introduced by Alvin Goldman, these may be classified as either occurrent or standing.²⁴ Now, while it would be an agent's strongest occurrent desire,²⁵ i.e., the one which satisfies (4), that is directly relevant to the explanation of his action, his other desires, both standing and occurrent, might be expected to influence his decision as to how this want will be satisfied.

Now, insofar as anything is a desire, one might be expected to seek its satisfaction, although one's efforts in that regard would presumably be proportional to the intensity of the particular desire. In addition to his first-order desires for particular objectives, a person might then be said to have a certain second-order desire, that is, he wants to satisfy all his first-order desires, each in proportion to its strength. Or, if he should be unable to accomplish this, he wants satisfaction of as many of these desires as the situation allows. At any particular time, we are rarely, if ever, able to achieve all that we want and must settle for something less. As a rule, one is then obliged to decide upon which subset of his immediate wants he will endeavour to satisfy. And, on the

assumption that one's desires can be ordered according to their relative intensity, how such a decision might be reached is now easily explained. That is, where one is unable to satisfy two different first-order desires, he might be expected to prefer satisfaction of the stronger to that of the weaker. On this basis, a person who is unable to satisfy all his desires would seek satisfaction of the subset composed of the greatest number of his strongest desires which can be satisfied under the circumstances.²⁶

Since only one's occurrent desires directly influence his actions, only they could be ordered in this manner. Yet, one's standing desires might also be ranked according to their relative strength. As 'dispositions or propensities to have occurrent wants',²⁷ their relative strength might be determined in the same way as we establish that of other dispositions and propensities, that is, by the frequency and/or likelihood of their giving rise to the states with which they are associated. Thus, the relative strength of a particular standing desire would be determined by the relative frequency and/or likelihood of its resulting in an occurrent desire of the appropriate kind. When manifested as occurrent desires, standing desires must, of course, compete with other occurrent desires to which the agent is subject. And only if strongest in this competition will it have a direct impact upon his action. Those standing desires which are more frequently activated, or

likely to be activated, as occurrent desires, i.e., are strongest as standing desires, however, are the ones which are most likely to enter such competition and thereby influence action.

With this in hand, we might then say that, in addition to his first-order occurrent and standing desires, a person has a particular second-order standing desire which might be described as follows:

- [DS]
- (i) To satisfy all his other desires, or
 - (ii) if he should be unable to satisfy all his other desires under conditions as he perceives them, to satisfy as many of them as are possible under those conditions,
 - (iii) where satisfaction of the stronger desire is always preferred to that of the weaker, if both cannot be satisfied.

On this basis, we might now revise our account so as to avoid the foregoing problem. Depending upon its relative strength as a standing desire, [DS] will be activated as an occurrent want when a person finds himself in certain situations. When this occurs, its influence upon his action would depend upon its relative strength as an occurrent desire.²⁸ Should it then prove strongest, it will be the one which gives rise to his action and which is required for an explanation of what he did, that is, [DS] will be the substitution instance of ' ϕ ' in conditions (3), (4), and (5). And such an 'activation' of [DS] might be expected to occur when, among an agent's beliefs

about his situation, are beliefs that a number of different actions would be equally efficient modes of achieving his strongest occurrent desire. Moreover, common experience would suggest that it is indeed something of this sort that takes place on such occasions. In that case, however, the original situation is transformed. Whereas the original evaluation of alternatives available to the agent concerned only their relative efficacy in promoting his initially strongest occurrent desire, when [DS] assumes that position, i.e., when [DS] is ϕ ; these options must be evaluated according to the agent's belief as to their relative capability of satisfying the strongest possible subset of his first-order desires. Actions which were indistinguishable with respect to the strongest member of the original set of occurrent desires could now be differentiated with respect to their efficacy in promoting, not a single desire, but sets of desires. And, on this basis, it would seem that one might distinguish between any two actions that he might care to imagine. But, even if this should prove insufficient, there is nothing to prevent his continuing the evaluation with respect to his standing desires,²⁹ until the superiority of a particular mode of behaviour has finally been established. If our analysis is correct - and certainly something of this sort would seem to take place - the problem of equally acceptable actions need not arise. Quite

simply, there would be no such actions. One would always have a criterion by means of which he could decide upon the best action in the situation. Insofar as one is unable to make such decisions, his perseverance in the application of this criterion rather than his lack of a criterion would be the cause.³⁰ Our original account of how a preferential ranking among actions might be obtained could then be vindicated on the assumption that, on some occasions - specifically, those in which the alternatives to be considered are believed to be equally effective methods of achieving one's strongest first-order occurrent desire - [DS] is activated and takes the place of that desire. And this would seem to offer a rough representation of what actually happens. Where a person is unable to decide between alternative modes of behaviour, rather than assume that he has no criterion by means of which to make such evaluations, we might then assume that he has been insufficiently assiduous in his application of the criterion. Yet, it continues to be at least theoretically possible - however practically improbable - that, even on this basis, one may be unable to determine which of several alternative actions is preferable. Should such cases arise, we would, of course, be confronted with our original problem. But it seems highly unlikely that there actually are such cases.

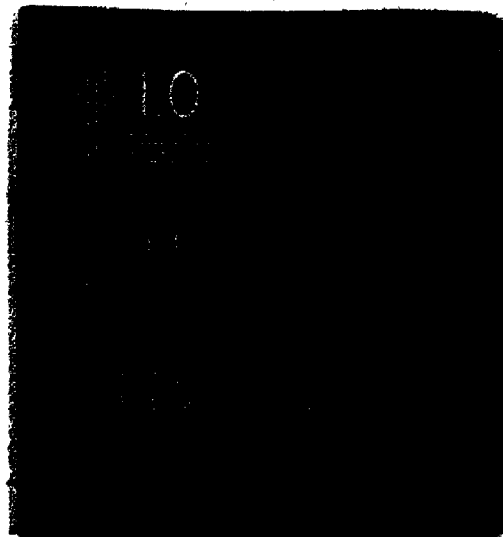
Condition (5) may now be included among those which an agent's situation must satisfy in order that our description of it assists in the explanation of his behaviour. Judgements as to the best mode of behaviour under the circumstances, we might assume, are made in the manner described above. This might then provide us with an adequate account of the choice which precedes action. But, if this is to serve our purpose, we must not only assume that a person can rank his desires according to their relative intensity, but that he actually does so and acts on this basis, i.e., we must assume that he "chooses from among the possible alternatives that which ranks highest in his preference ordering" and that "his preference ranking is transitive".³¹ For, unless an agent performs in this manner, rationalizing his behaviour would be impossible.

According to the foregoing account, only if J's A-ing were seen in the light of conditions (1) through (5) could one be said to comprehend it. No member of this set could contribute to our understanding of what J had done unless all others were also known or assumed. For, as we have seen, where any of these conditions is omitted, or its denial assumed, the action would not appear reasonable in the light of, or be rationalized by, those which remain. But is this set now complete? Or to put it another way, have we now provided a complete description of an agent's situation for the purpose of explaining what he did? Once

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again, our response must be negative. For even where all these conditions are known, they might still appear irrelevant to and thus, non-explanatory of, the agent's behaviour. He may have behaved in this manner even though these conditions had not been satisfied, or failed to do so even though they were. Should that be the case, however, what he did could not have resulted from his desires and beliefs. No appeal to such factors could then explain his behaviour. It will be recalled that all answers to (E), i.e., descriptions of a person's behaviour, are not action-descriptions. Although an action is always the behaviour of a person, the behaviour of a person is not always an action. Thus, besides sentences of the sort represented by (B), a person's behaviour may also be described by sentences like

- i) 'Jones fell over his umbrella',
- ii) 'Smith caught a cold',
- and, iii) 'Brown digested his dinner'.

While sentences of this sort describe what a person did, they do not describe an action. The event in question was not brought about by an agent's reasons. The performer's beliefs and desires could neither result in nor prevent his behaving in the manner described. No appeal to such phenomena could then explain what he did. Conditions (1) through (5) would not then describe why such events had taken place and our knowledge of these conditions would not assist in explaining their occurrence. To distinguish what

was done in such cases from actions, we refer to behaviour of this sort as mere behaviour. And, while a person's actions might result from his beliefs and wants, his mere behaviour would not. If conditions (1) through (5) are then to promote an understanding, i.e., explain, what a person did, we require some assurance that their explanandum is an action-description, that his behaviour, on this occasion, was an action rather than a piece of mere behaviour. The foregoing set must therefore be supplemented by further conditions which restrict their application to actions.

At this point, it might be observed that, while the kinds of conditions giving rise to mere behaviour³² might be fundamentally different from those which give rise to actions, and that the explanations of such diverse phenomena might be expected to reflect these differences, this has absolutely no implications with respect to the formal structure of their respective explanations. For the purpose of explaining an action, all the conditions obtained thus far concern the agent's beliefs and desires. When explaining his mere behaviour, however, we would expect to take quite different factors into consideration. But, despite these obvious differences, the explanations of such diverse kinds of phenomena might, nevertheless, be structurally identical. In either case, the explanans might contain assertions which, although they describe radically different kinds of phenomena, are of the same

logical type and stand in the same logical relation to one another and to the explanandum. Just as the explanations of chemists invoke different considerations than those of the physicist, so too we would expect explanations of actions to differ from those of mere behaviour. But, like those of the chemists and physicists, such explanations might also be of the same explanatory model. That actions must be distinguished from mere behaviour would therefore have no impact upon the regulist/anti-regulist dispute.

Now, with the aid of conditions (1) through (5), we are attempting to provide a general account of rationalization. Explanations of this sort involve a description of an agent's reason for acting as he did. But, as has been so often observed, to explain in this manner is to show the "behaviour as justified by the circumstances in which it occurs".³³ "Reasons...are asked for when there is an issue of justification as well as explanation."³⁴ And it is this facet of action-explanation that both anti-regulist models, viz., the Donagan (M_1) and the Dravian (M_2), endeavour to accommodate. But, our discussion of condition (5) reveals that, contrary to the opinion of some,³⁵ the justification which is required cannot be obtained by merely showing that, under conditions as the agent perceived them, he believed behaving as he did to be appropriate, i.e., would result in his achieving his objective. For, a number of different actions might all satisfy this

requirement, that is, they might all be represented as appropriate by this criterion. In which case, seeing an action as appropriate would not justify an agent's doing it as against his doing something else. What is required for such a justification is that what was done be represented - and hence, representable - as preferable to any of the alternatives, i.e., as the best thing to do under the circumstances. Such a justification would then require our showing the agent's behaviour to be (rationaly) preferable to anything else he might have done at the time. Only this could provide the sort of justification which is called for and hence, succeed in rationalizing an agent's behaviour. But, in order that such a justification be possible, it must be true that the agent could have behaved differently under the circumstances. That is, there must have been an alternative which the agent could have done instead of what he actually did, if he had chosen to do so. In short, he must have had a choice among equally possible alternatives, all of which he was capable of performing. Should one be incapable of behaving other than as he did, he could not be meaningfully said to have had a choice with respect to his behaviour. He would have no alternative but to behave as he did.³⁶ And, without an alternative, his behaviour could never be shown to be (rationaly) preferable. Indeed, with respect to such occurrences, the notion of (rational) preference

would be quite senseless. Rationalizing such behaviour would then be impossible. If an agent's reasons are then to succeed in explaining what he did, his behaviour must then be amenable to choice. That is, he must be thought capable of choosing to perform it and, on this basis, of making it happen, or of choosing to refrain from performing it in favour of some alternative. As has so often been observed, the notion of choice is then central to any analysis of human action.³⁷ Thus, one is commonly considered the initiator of his actions, their source, capable of either promoting or preventing their occurrence; while, with respect to his mere behaviour, he is regarded as a sufferer, enduring rather than initiating, incapable of either promoting or preventing their occurrence. And it is in this sense that one might be said to be capable of performing his actions and incapable of performing other forms of behaviour. Insofar as one is capable, in this sense, of performing a particular piece of behaviour, his doing so would be recognized as an action and would be explainable in terms of his reasons. If it was then true that

- (6) J is capable of A-ing, and refraining from A-ing

in the required sense, it would be appropriate to explain J's A-ing in terms of his beliefs and wants. That is, only if this requirement were satisfied would his behaviour be

recognized as an action, and only in that case could conditions (1) through (5) assist in its explanation. If these conditions are then to promote an understanding of what transpired, (6) must be added to the set. With its addition, we restrict the application of the entire set to actions.³⁸

By including (6) in the foregoing set of conditions, we eliminate the possibility that the event to be explained is a piece of mere behaviour. This guarantees that the explanandum is an action-description. Could we now say that knowledge of this set assures understanding of the event to be explained? Yet, even now one might have reservations. For, as has been observed,

the distinction between action and non-action hangs not just on the presence or absence of the corresponding intention or purpose, but on this intention or purpose having or not having a role in bringing about the behaviour.³⁹

It is not enough that the agent have the relevant wants and beliefs; his having them must actually result in his performance of the appropriate behaviour, if reference to such mental states is to assist in explaining what he did. That is, there must be a connection between his having these beliefs and desires and his behaviour. But, it still seems possible that one have all the beliefs and desires listed in (1) through (5), that he be capable of A-ing in the sense described in (6) and moreover, that he actually perform the relevant piece of behaviour, i.e.,

render (B) true, although his performance did not result from his beliefs or desires. Should this occur, knowledge of these conditions would still fail to provide the understanding we seek. To illustrate this, we might consider the novice billiard-player, foolishly drawn into a high-stakes game with experts, who, to save his ante, must make a complicated double-bank shot. And let us assume that he succeeds. Obviously, he would be capable of making this shot.⁴⁰ That he had the appropriate beliefs and desires is equally apparent. Can we then explain his performance on this basis? Here, one is left somewhat bewildered. An astonished spectator is likely to dismiss it as sheer accident, or seek some other mode of explanation, e.g., structural vibrations, drafts, psycho-kinesis, faith, etc. But this amounts to a tacit admission that, even though conditions (1) through (6) have been satisfied, we are still unable to understand what happened on this basis. Although he satisfied the foregoing conditions, as a novice, the billiard-player would still be thought to lack the experience required to make such a shot; it is assumed that he does not know how⁴¹ to perform the shot and, for this reason, that his beliefs and desires could not have succeeded in bringing about his performing in this manner. Thus, while he has a reason for acting as he did and actually performed the appropriate piece of behaviour, his reason and his behaviour are not thought to be related in

a way such that the former could be said to have brought about the latter. One would then be required to deny that an appeal to his reasons could explain what he did. Indeed, on this assumption, the novice's performance would not even merit recognition as an action. For, it would not have occurred as a result of his reasons. Yet, since he is capable of this kind of behaviour, although perhaps unable on this occasion, we would still wish to distinguish his performance from mere behaviour with respect to which he would have no such capability. Even where such knowledge was lacking, if all the other conditions were satisfied, we would continue to regard the person's behaviour as an action⁴² and would generally hold him responsible for what he had done, albeit perhaps not to the same extent as we would if he had had the necessary knowledge. ~~Thus, if~~ Smith shot Jones with a gun, and if we knew that the appropriate assertions of forms (1) through (6) truly described Smith, even though we also knew that he did not know how to perform such an action, i.e., that he did not know how to aim and fire a gun so that his crime was in some sense accidental, we would, nevertheless, hold Smith responsible for what he had done. Since behaviour of this sort cannot be dismissed as mere behaviour, it must be recognized as action. Yet, it can only be so recognized in a qualified sense, i.e., not as the full-blooded intentional variety with which we are primarily concerned. For, because of the

agent's lack of the requisite knowledge, actions of this sort could not result from his reasons. This could only be the case where the agent can be truly said to know how to perform the behaviour in question. And only in those cases would his actions admit of explanations by reasons.

In circumstances like those described above, a spectator has yet another alternative; he might decide that the billiard-player is not quite the novice he was alleged to be. That is, whether through clandestine practice or innate talent, he had acquired the knowledge required to make the shot. Indeed, the player himself might be surprised by his expertise and thence conclude that he had a talent of which he was previously unaware. Frequently, it is in precisely this way that we discover skills that we did not realize we had. When conditions (1) through (6) and (B) are all true, this is usually taken as conclusive evidence that J actually knew how to A, regardless of how he might have acquired such knowledge or whether he, or anyone else, was aware of his having it. To preserve the explanatory adequacy of conditions (1) through (6), we would then be obliged to assume that

(7) J knows how to A.

Such knowledge may be thought of as a dispositional trait⁴³ which, although generally acquired by experience, may, in some cases, e.g., child prodigies, be innate. And, in order that an agent's behaviour be explainable in terms of

his reasons, he is required to have such a disposition with respect to behaviour of this type. One could, of course, only be expected to know how to do things of which he is capable, i.e., (7) entails (6). But he is usually capable of far more than he knows how to do, i.e., (6) does not entail (7).⁴⁴ Yet, if no one should know how to perform a certain type of behaviour, while we could not validly infer from this that no one is capable of doing it and hence, that it is not an action at all, this would nevertheless predispose us to such a conclusion. Thus, when yogas, mystics, clairvoyants, and their like claim that we are capable of performing various extraordinary feats, one's initial inclination is to determine whether they, or anyone else, could be reasonably said to know how to do such things. If unsatisfied in this respect, we would generally disregard their allegations. Further confirmation of the relation between 'being capable of...-ing' and 'knowing how to...', i.e., between (6) and (7), might be obtained by observing that only with respect to actions is it appropriate to say that one knows how to do it, or to deny this. Of falling, or growing hair, such claims would be quite out of place. In addition to being the sort of thing one is capable of doing, an action might be recognized as the sort of thing one might know how to do. And if one's reasons are to explain his actions, i.e., if one's behaviour is to be a full-blooded, intentional action, not only must they be the

sorts of things he could know how to do, he must actually have such knowledge.

Both anti-regulist models of action-explanation, viz., the Donagan (M_1) and the Dravian (M_2), appeal to the agent's situation, 'a situation of type C', for the purpose of explaining his behaviour. However, because they omit mention of what features of an agent's situation must be considered in order to obtain an understanding of his action, they allow no conclusive appraisal. Lacking such information, we could never determine when these models were correctly applied and when not. Thus, while they must be granted some credibility in the form in which they have been presented, they are more suggestive than instructive. As a result, they could not provide us with an adequate analysis of action-explanation. To remove this deficiency, we undertook an investigation of what particular conditions an agent's situation must be comprised in order that his acting in a certain manner appear reasonable or appropriate to one who was acquainted with his circumstances, that is, so that the agent's behaviour might be understood in the light of his situation. Our method was simple: Taking an assertion which would be generally accepted as a reason for acting, we considered what other facts which, if known, would cause us to deny that it is the reason and hence, explanatory of, what was done. Since there would appear to be a consensus on such matters, we might conclude that,

in order for any assertion to be offered or accepted as the reason for an action, both the one who offers it in explanation and his auditor must assume that none of these defeating conditions is satisfied, i.e., that their denials are all true. On this basis, we obtained the following set of conditions:

- | | | | |
|-----|---|-----|--|
| [R] | { | (1) | J believes that μ |
| | | (2) | J believes that, under conditions μ , A-ing would result in ϕ |
| | | (3) | J wants ϕ |
| [T] | { | (4) | J has no want (or set of wants) which either equals or exceeds his want for ϕ |
| | | (5) | J believes that there is no action, under conditions μ , which is as good or better, as a means of achieving ϕ , than A-ing |
| | | (6) | J is capable of A-ing and refraining from A-ing |
| | | (7) | J knows how to A, |

which I shall call the set [T].⁴⁵ Our discussion indicates that, individually, each of these conditions is necessary for the explanation of the action. That is, if the agent's situation, i.e., 'a situation of type C', should fail to satisfy any member of this set, knowing his situation would fail to provide an understanding of what he did. For the purpose of explaining his action, our characterization of an agent's situation would then have to include this set in its entirety. This set would then be minimal in the sense that, if any one of its constituents were omitted, no other member, either singly or jointly, could assist in explaining what was done. In order that any member of [T]

be the reason for an action, all the others must accompany it as tacit assumptions. Only if one actually assumed that these other requirements were satisfied could his acceptance of any member of this set as the reason for an action be reasonably explained.

But is [T] now complete? That is, does this set provide us with a complete description of an agent's situation for the purpose of explaining his action? We obtained this set by considering factors which, if discovered, would prevent our seeing an action as either reasonable or appropriate in the light of the other members of the set. To accommodate such cases, the set [T] was developed. If this set is incomplete, there must still be situations in which, although [T] is known, the behaviour in question appears neither appropriate nor reasonable. Additional conditions would be required to accommodate such cases. Are there any such cases? Since common intuition has been our primary instrument of analysis, we must defer to its decision. And quite frankly, I can think of no assertion which, if known in conjunction with [T] and (B), would cause us to deny that [T], or any of its members, made it reasonable to expect the occurrence of the action which (B) describes. Nor can I think of any statement which, if not assumed in conjunction with [T], would prevent our recognizing any member of that set as explanatorily relevant to J's A-ing. In that case, however, [T]'s

members would jointly provide us with a complete description of J's situation for the purpose of explaining his action. This set might then be accepted as maximal insofar as nothing else need be included in our characterization of an agent's situation for the purpose of explaining his action. [T] would then provide an exhaustive analysis of 'a situation of type C' as it occurs in (M_2) . One who would deny this must provide an intuitively plausible counter-example. And the possibility of this seems remote.⁴⁶ Until such a rebuttal is obtained, we might therefore regard the members of [T] as both individually necessary and jointly sufficient for a description of the agent's situation which would enable explanation of his action.

Our account, thus far, has been little more than an elaboration of the Donagan, (M_1) , and the Dravian, (M_2) , models of action-explanation. [T], we have argued, provides a complete description of an agent's situation as referred to in those models. But an asymmetry must now be observed. For, while (M_2) would appear to make reference to the agent's situation as it actually is, (M_1) speaks of his situation as he believes it to be, i.e., 'a situation of type C' as it occurs in (M_2) designates the agent's actual circumstances while in (M_1) it designates his circumstances as he judges them to be. [T] might then describe the referent of 'a situation of type C' in (M_2) , but it could not perform this function in (M_1) . How then are these two

models related? A review of this set, viz., [T], provides a ready answer. For, it is apparent that the first member, viz.,

(1) 'J believes that μ ',

concerns facts as the agent, J, perceives them and as he judges them relevant to his action. It is this condition which would then correspond to

(ii) 'J judges himself to be in a situation of type C',

the second premiss of (M_1); μ , rather than [T], would describe a situation of type C as referred to in this context. Similarly, the third premiss of this model, viz.,

(iii) 'J judges that ϕ could only be achieved in a situation of type C, if he A-ed',

might be identified with the second condition of [T] as supplemented by (5). And finally, (M_1)'s first premiss,

(i) 'J was resolved to achieve ϕ at all cost',

would seem to be nothing more than a conjunction of [T]'s third and fourth conditions. The premisses of the Donagan model, i.e., of (M_1), might then be seen as a subset of [T], namely conditions (1) through (5). And certainly, at first blush, this would seem to be sufficient to explain what was done. But, as we have seen, such impressions are deceptive. For, without additional assumptions - specifically, (6) and (7) - knowledge of these conditions might

still fail to rationalize behaviour. Thus, insofar as its dependence upon these presuppositions is neglected, (M₁) remains incomplete. And with the addition of these conditions, we obtain the set [T] - a complete description of the agent's actual situation as referred to in (M₂).

But (M₁)'s adherents might still argue that, while their account must be supplemented in this manner, such a revision would now be sufficient - with no further addition - to explain actions. Adding a general assertion as in (M₂), they might argue, is quite redundant and would only misrepresent action-explanation; explaining J's A-ing might require knowledge of [T], but it does not involve knowledge of any general principle whatsoever. This, however, would be little short of an outright denial that such arguments are explanatory. For, we are told that arguments of this sort succeed in explaining an action by showing that it was /the reasonable or appropriate thing to do in the light of the agent's situation.⁴⁷ But it seems equally obvious that "reasons for acting...have a kind of generality or universality"⁴⁸ in that, if one's being in a certain situation or having a certain reason explains his behaviour, we would expect it to explain the behaviour of anyone else in that situation or having that reason.⁴⁹ In virtue of this fact, we might say that action-explanations, like ethical properties, are universalizable.⁵⁰ When we know that a person is in the same situation as another and

has the same beliefs and desires, we would expect him to act in a similar fashion. Insofar as his behaviour fails to meet our expectations, we assume his situation, beliefs or desires, to have been different. No account which did not allow for such generalization would be thought to explain an action. But this feature of action-explanations could only be captured by general statements - principles of action. To deny that explanations of this sort involve such assertions amounts to an outright denial of their universalizability. And this, in turn, precludes their satisfying the condition of rational expectation. For, if an alleged explanation were not universalizable, even though knowledge of [T] promotes comprehension of J's A-ing, knowing that these statements continue to be true when asserted of H, where 'H' denotes someone other than J, or J at some other time, would provide no grounds for expecting H to act in like manner. In that case, however, we would most assuredly deny that we had an explanation in the first place.

Essentially the same point might be made from a somewhat different perspective. In order that reference to an agent's situation succeed in explaining his behaviour, there must be some relation between his situation and what he does. The particular relation which is required has been referred to as that of explanatory relevance and, where actions are concerned, it is said to be satisfied

when an agent's situation renders his behaviour reasonable or appropriate. Yet, from the premisses of (M_1) - even if extended to include all the conditions of [T] - one could legitimately draw no such conclusion with respect to an action. Knowledge of what is does not provide knowledge of what is reasonable or appropriate. Conditions (1) through (7) describe certain facts, as does (B). But, if the former is to succeed in explaining the latter, one must know, in addition, that they are related in the appropriate way. Even if supplemented in the manner suggested above, however, the premisses of (M_2) contain no such information and hence, could not provide it. Unless they were accompanied by some general assumption concerning the relation between an agent's situation, his decision, and his behaviour, one would have no reason to accept either (B) or (C). The fact that, with knowledge of [T], one would be said to understand J's A-ing would only indicate that such knowledge ~~must~~ be accompanied by tacitly assumed generalizations which establish its relation to, and thereby permits explanation of, the action. To maintain that such an explanation "is not based on any universal hypothesis whatsoever",⁵¹ as (M_1) 's adherents do, would then amount to denying that the premisses of this model stand in any relation whatsoever to the conclusion and hence, that they stand in the relation of explanans to explanandum. In order to explain an action, "we must bring some kind of general knowledge to bear on it".⁵²

An action-explanation must therefore include general assertions. Because (M_1)'s advocates deny this, their account must be discarded.

But one might argue that a person does not always act reasonably; "he may have done what he did as a result of thinking which was slipshod or even logically absurd".⁵³

Nevertheless, we can still explain what he did. One

would be in a pretty pass if he were obliged to assume that only actions he may succeed in understanding were rational. They must, indeed, be intelligible; but that is another thing.⁵⁴

And the point is well made. An action's explanation must be distinguished from its evaluation as rational or irrational. But that is beside the point. For, while it is true that a rational action is one which is reasonable in the light of the agent's situation as described by [T], the converse is not.⁵⁵ In view of one's beliefs and desires, his behaving in a particular way might seem quite appropriate or reasonable, although we might still regard his behaviour as completely irrational, e.g., Smith's scratching his nose in order to catch fish. To say that an action was reasonable or appropriate, in ~~the~~ sense with which we are concerned, is just to say that it "was intelligible in terms of...considerations appropriate to its context";⁵⁶ it is intelligible just insofar as it can be seen as reasonable or appropriate in the light of the agent's situation as described by [T]. An action's being

reasonable in this sense is then quite compatible with its being irrational. Thus, while admitting that action-explanation requires an action's being shown to be reasonable or appropriate, we are still able to maintain the distinction between action-explanation and action-evaluation.

For the reasons cited above, we must then conclude that, to explain an action, one must not only know the agent's situation (as described by [T]), he must also know certain generalizations, rules or principles, which govern such circumstances. This would, of course, legislate against (M_1)'s acceptance in favour of (M_2)'s. For, the principle of action, i.e., the second premiss of the Dravian model, (M_2), which the latter provides is meant to represent just those general assumptions which are required for such purposes. These principles, we are told, assist in the rationalization of human behaviour; they enable us to "show that what was done was the thing to have done for the reasons given".⁵⁷ The first premiss of this model, viz.,

(i) 'J was in a situation of type C',

must then represent the reason offered in explanation of an action.

Now, it will be recalled that, when we give reasons, our assertions customarily take the form of conditions (1), (2), or (3) of [T]. Yet, in order that any one of these be

accepted as the reason for the action, all the other members of that set must be assumed. Reasons might then be said to come with a retinue of tacit assumptions. And, in conjunction with these tacit assumptions, the explicitly stated reason provides a complete description of the agent's situation as it affects his behaviour. To capture this, we might say that reasons can take the form of either

- (1) 'J believes that μ ' - (with all the other conditions of [T] as tacit assumptions),
 or
 (2) 'J believes that, under conditions μ , A-ing will result in ϕ ' - (with all the other conditions of [T] as tacit assumptions),
 or
 (3) 'J wants ϕ ' - (with all the other conditions of [T] as tacit assumptions).⁵⁸

The assertion which is explicitly stated as the reason for an action, together with its attendant assumptions, would then provide us with a complete description of a situation of type C as it is referred to in the Dravian model.

When one reconsiders the first premiss of (M_2) , however, he cannot help but observe certain discrepancies. In the first place, although it is presumably intended to represent the reasons which people offer in explanation of actions, it is apparent that reasons, as they are commonly expressed, simply do not take this form. Yet, as it occurs in (M_2) , this premiss only asserts that the agent, J, was

in a particular situation, viz., 'a situation of type C'. And, according to our analysis, that situation would be described by [T]. This premiss might therefore be recast as

J was in a situation as described by (1) 'J believes that μ ', and (2) 'J believes that, under conditions μ , A-ing would result in ϕ ', and (3) 'J wants ϕ ', and (4) 'J has no want (or set of wants) which equals or exceeds his want for ϕ ', and (5) 'J believes that there is no action, under conditions μ , which is as good or better, as a means of achieving ϕ , than A-ing', and (6) 'J is capable of A-ing', and (7) 'J knows how to A'.

And this would not, of course, represent the reasons which people commonly offer in explanation of their actions. Action-explanations, as they are customarily encountered, consist in assertions which take the form of one of the first three conditions of [T]. That is, they are drawn from the subset (1), (2), and (3). If such assertions are to succeed in explaining actions, i.e., are to be accepted as the reasons for what was done, however, all the other conditions of this set must be tacitly assumed. And (M₂)'s first premiss provides an adequate representation of this requirement. It would then appear that this premiss was meant to represent all the conditions required for an action's explanation and not merely the one which is explicitly stated as the reason. It could not therefore be expected to take the form of reasons as we commonly employ them. But, if we were now to distinguish between those conditions which remain tacit when we explain actions

and those which are explicitly stated as reasons, we might still provide an adequate representation of common practice while preserving all the conditions required for such explanations.

Yet, our representation of (M_2) 's first premiss is still unsatisfactory. For; if we are to explain a person's behaviour in terms of his situation, we must make reference to the facts of his situation rather than the sentences which describe those facts. As they occur in our reformulation of (M_2) 's first premiss, however, conditions (1) through (7) are not descriptive assertions. They appear as the names of the descriptive statements required for explanation rather than the statements themselves. By embedding them within the revised premiss as we have, we have removed them as elements of our explanation. If we were then to remove them from this context, i.e., delete the prefix 'J was in a situation as described by...', so that they might, once again, function as descriptive assertions, we would thereby restore their capacity to fulfill their explanatory role. And with this revision, (M_2) 's first premiss would be reduced to a conjunction of [T]'s members.

With this in hand, this premiss might now be easily made to reflect common practice. For, by recognizing that only one of [T]'s first three conditions can serve as the explicitly stated reason for an action, although all the others must accompany it as tacit assumptions, we might not

only represent the manner in which people actually explain their actions, but also accommodate the various presuppositions which such explanations involve. On this basis, (M₂) might be reconstructed as

(M₅) (i) J believes that μ - (with all other conditions of [T] as tacit assumptions)

[or alternatively]

J believes that, under conditions μ , A-ing will result in ϕ - (with all other conditions of [T] as tacit assumptions),

or

J wants ϕ - (with all other conditions of [T] as tacit assumptions)

(ii) Under conditions [T], the appropriate thing to do is A.

[It is therefore appropriate that]

(B) J A's.

But, when we explain actions, it is obvious that we do not explicitly state the principle of action which governs our explanations. They, along with those conditions of [T] which are not offered as reasons, remain as implicit assumptions which, although unexpressed, must be presupposed in order that reasons succeed in explaining what was done. (M₅) might then be schematically represented as follows:

(M₆)

A
E
C
X
T
P
I
L
O
A
N
N
A
T
I
O
N

Explicit assertions offered in explanation of an action (The reason for an action)

either (1), or (2), or (3)

Implicit assumptions required for the explanation of actions

All conditions of [T] other than the one explicitly stated as the reason for the action

and

The Principle of Action

[It is therefore appropriate that]

(B) J A's

When presented in this way, action-explanations as represented by this model are clearly seen as enthymemes or explanation-sketches which only succeed in explaining behaviour with the aid of various implicit assumptions. In this respect, its adherents would agree with the regulists. But disagreement immediately arose with the claim that, when all the assumptions underlying such explanations are made explicit, the resultant argument takes the form of the Dravian, (M₂), rather than the covering-law model.

When reformulated in the manner suggested above, (M₂) assumes a new plausibility. For surely, on this basis, one's behaviour must be seen as appropriate. Yet, even

with such refinements, this model still faces a number of formidable objections, namely, those directed at its second premiss, the principle of action. And only if such obstacles can be removed would it merit acceptance. From the outset, it will be recalled, we were provided with no criterion by which such principles could be distinguished from their nonexplanatory imitators. But, we would then have no assurance that a particular argument of this form actually succeeds in explaining an action. Moreover, such principles, it was observed, could never sustain predictions of actions. And, since we are able to make such predictions with considerable accuracy, this analysis fails to accommodate certain relevant facts and must, therefore, be judged theoretically unsatisfactory. To avoid objections based upon the condition of rational expectancy, defenders of this model would be obliged to maintain that this requirement might be satisfied by a relationship between the explanans and the explanandum which was weaker, i.e., neither deductive nor inductive, than the one required for covering-law explanations. Yet, rather than resolve the dispute, this would only foster further controversy. And given our reconstruction of their position, this might well be unnecessary. For, if conditions as described by [T] are sufficient for the occurrence of the behaviour in question, a far stronger position might be defended.

Although perhaps somewhat cumbersome, the principle

of action, as it occurs in the Dravian, (M_2), model, might now be reformulated as

If (1) J believes that μ , and (2) J believes that, under conditions μ , A-ing will result in ϕ , and (3) J wants ϕ , and (4) J has no want (or set of wants) which either exceeds or equals his want for ϕ , and (5) J believes that there is no action, under conditions μ , which is as good or better as a means of achieving ϕ , than A-ing, and (6) J is capable of A-ing, and refraining from A-ing, and (7) J knows how to A, then

the appropriate and/or reasonable thing for J to do is A.

In this form, it merely states explicitly what remained implicit in the original. As such, it would appear to encounter no objections. Here, the antecedent describes all the conditions governing an agent's situation insofar as they enable rationalization of his behaviour. Moreover, it would establish the required connection between the explanans of (M_2) and its explanandum. On this account, our reconstruction would then seem quite acceptable. But it might be criticized on other grounds. For principles of action, as we have been told, are, in some sense, general assertions. As we reconstruct it, however, it remains a singular statement and, as such, would be of little use in explanation. If we are to provide an adequate representation of such principles, we must then capture their generality. Now, it might be observed that, as presented above, the principle of action involves four distinct denotative expressions, namely, (i) 'J' which designates the agent, (ii) ' μ ' which designates the agent's

situation as he perceives it, (iii) ' ϕ ' which designates the agent's desire, and (iv) 'A' which designates the agent's action. If we were then to quantify with respect to any or all of these terms, we might thereby capture the generality of principles of action. But, in this way, we might obtain fifteen distinct principles of action, any one of which might, in conjunction with (M_2)'s initial premiss, succeed in rationalizing a particular action. Among them, would be

- (J) (μ) (A) (ϕ) [If (1) J believes that μ , and (2) J believes that, under conditions μ , A-ing will result in ϕ , and (3) J wants ϕ , and (4) J has no want (or set of wants) which either exceeds or equals his want for ϕ , and (5) J believes that there is no action, under conditions μ , which is as good or better, as a means of achieving ϕ , than A-ing, and (6) J is capable of A-ing and refraining from A-ing, and (7) J knows how to A, then

[P]

the appropriate and/or reasonable thing for J to do is A],⁵⁹

which we might adopt as the representative of this entire set. With this, however, principles of action would now assume the familiar form of universal generalizations. Yet, they would still not be recognized as nomological principles. And it is this which is the source of their difficulties. For we still have no way of distinguishing them from other, nonexplanatory assertions of the same form. Nor could such principles justify our predictions.

But [P], and the set which it represents, is highly suggestive. For, if it could be shown that we possess a corresponding set of laws, as represented by

(J) (μ) (A) (ϕ) [If (1) J believes that μ , and (2) J believes that, under conditions μ , A-ing will result in ϕ , and (3) J wants ϕ , and (4) J has no want (or set of wants) which either exceeds or equals his want for ϕ , and (5) J believes that there is no action, under conditions μ , which is as good or better, as a means of achieving ϕ , than A-ing, and (6) J is capable of A-ing and refraining from A-ing, and (7) J knows how to A, then

[L]

J A's],

all the problems which confront this model and specifically, its principle of action might be resolved.⁶⁰

Where conditions nemologically determine an event's occurrence, if one knew of these prior conditions and the laws which govern them, it would surely be both reasonable and appropriate for him to expect that event to occur. In the light of such knowledge, that event's occurrence must be regarded as appropriate and the occurrence of anything else, as inappropriate. The truth of the stronger assertion, [L], would then guarantee the truth of the weaker, [P]. If our possession of such laws could then be sustained, we might, on this basis, explain our acquisition of principles of action as well as provide a criterion by means of which they might be distinguished from their non-explanatory imitators. All and only legitimate principles

of action, it might then be maintained, follow from laws of the sort cited above. And, since their legitimacy would be grounded in nomic regularity, such principles might even be admitted to sustain predictions. [P] might then be said to tell us what, under the circumstances, it would be reasonable to expect; [L] would tell us why such expectations are reasonable. Such an account would then enable us to accommodate and explain all the insights of its predecessors, while avoiding the problems which they encounter. But, in that case, it must be acknowledged as stronger than its rivals and, all other things being equal, would be preferable to them. To obtain it, however, we are obliged to support the contention that we do, in fact, possess laws of the sort represented by [L].

FOOTNOTES

¹ Dray, William H., Laws and Explanation in History, pg. 125.

² All other factors, since they do not promote an understanding of the event, would be explanatorily irrelevant and must, therefore, be excluded from the explanans. For the purpose of explaining a person's action, they would not then be recognized as part of his situation and would not be included in our description of 'a situation of type C'.

³ Donagan, Alan, "The Popper-Hempel Theory Reconsidered", in Philosophical Analysis and History, edited by William H. Dray, pg. 147.

⁴ When the reason offered in explanation of an action concerns the agent's belief about his situation, if the agent's belief should be true, it is customary to describe the situation-- assert the belief-- without explicitly identifying it as such. Thus, 'Why did Jones take his umbrella to the city?' would usually be answered with 'It's raining in the city', rather than 'Jones believes that it's raining in the city', if the belief which is offered in explanation is considered to be true. But, in order that this response explain - be a reason for - Jones' action, we must assume that we are not merely being offered a piece of meteorological information, but rather a description of what Jones believes to be the case. For, as the preceding discussion would suggest, unless the facts are reflected in an agent's beliefs, alluding to them can be of no assistance in explaining his action. Yet, at some point or other our beliefs must come in contact with reality. Insofar as it is the actual world which determines what we believe and what we desire, it will also determine what we do. And, to the extent that beliefs, desires, and actions are determined by 'the real world', they are rational. Natural events are not therefore irrelevant to human events as many would have us believe. But their influence upon human action is indirect, mediated by beliefs and desires.

As a rule, when offering a person's belief in explanation of his action, we only find it necessary to state explicitly that we are describing his belief when what is

believed is thought to deviate from fact, i.e., is regarded as false. Thus, if the city were suffering from a drought and would continue to do so, in explanation of Jones' behaviour we would be obliged to state explicitly that he believed it to be raining in the city. Regardless of how it is expressed, however, we must, in either case, assume that the agent's belief is being described. All the reasons which might be offered in explanation of actions are subject to similar stylistic variations. But this does not affect our main point. While, in practice, reasons of this sort do not always explicitly assume the form represented by (1), if completely stated, they would be required to do so.

⁵ Dray, op. cit., pg. 119.

⁶ That is, it would be subject to essentially the same sort of objections as were levelled at the Dravian programme.

⁷ Taylor, Charles, The Explanation of Behaviour, pg. 32.

⁸ Harré, H. and P.F. Secord, The Explanation of Behaviour, pg. 40.

⁹ ' ϕ ' may be replaced by either an individual or sentential constant. See, footnote 7, Chapter Three.

¹⁰ It might be observed that people want different things under different circumstances and hence, that (3) should be qualified by the phrase "under conditions μ ".

However, this would be unnecessary. For, we might assume that our description of the goal itself, viz., ϕ , would be required to include some account of the conditions governing it.

¹¹ See, Dray, op. cit., pg. 125.

¹² Davidson, Donald, "Actions, Reasons, and Causes", in The Nature of Human Action, pg. 70.

¹³ Notice that "J believes that..." or "J thinks that..." is usually omitted when either (1) or (2) is offered as the reason, and where what is believed is thought to be true. See, footnote 4, above.

¹⁴ Pap, Arthur, An Introduction to the Philosophy of Science, pg. 264.

- 15 Thus, one who knows (3) might identify J's A-ing as a trying-to-obtain- ϕ , while one who knows (1) might identify it as a manifestation of his believing that μ .
- 16 Brandt, Richard and Jaegwon Kim, "Wants as Explanations of Actions", in Readings in the Theory of Action, edited by Norman S. Care and Charles Landesman, pg. 206.
- 17 Or alternatively, had a number of desires which, when combined, exceeded his desire for ϕ . Here, ' ψ ' might designate either a single object (or state-of-affairs) or a set.
- 18 Armstrong, D.M., A Materialist Theory of Mind, pg. 152.
- 19 Assuming, of course, that Jones had, or had access to, a raincoat.
- 20 G.W. Leibniz, Textes Inedites, (edited by G. Grua), Paris, 1948, pg. 276. Translated by Ausonio Marras.
- 21 Russell, Bertrand, A Critical Exposition of the Philosophy of Leibniz, pg. 293.
- 22 Downs, Anthony, An Economic Theory of Democracy, pg. 5.
- 23 Although perhaps not sufficient, this condition would seem to be at least necessary for reasonable (rational) choice.
- 24 Cf. A Theory of Human Action. "A standing want...is a disposition or propensity to have an occurrent want, a disposition that lasts with the agent for a reasonable length of time." (cf. ibid., pg. 86) "An occurrent want is a mental event or mental process." (Loc. cit.)
- 25 "Standing wants...do not by themselves cause acts. Standing wants...can affect actions only by becoming activated, that is, by being manifested in occurrent wants." (Ibid., pg. 88)
- 26 Assuming an appropriate utility function as a measure of the relative strength of the agent's occurrent desires, we might say that he seeks satisfaction of that subset in which the sum of utilities assigned to the members is greatest.

- 27 Cf. Goldman, op. cit., pg. 86.
- 28 This might serve as a measure of the agent's rationality as well.
- 29 For such purposes, they might have to be activated as occurrent wants. But that would not affect our programme.
- 30 And this might represent yet another measure of an agent's rationality.
- 31 Downs, op. cit., pg. 6.
- 32 And other natural phenomena.
- 33 Louch, A.R., Explanation and Human Action, pg. 4.
- 34 Peters, R.S., The Concept of Motivation, pg. 31.
- 35 Cf. Morton White, Foundations of Historical Knowledge, who describes a position which he refers to as 'moralism' and which might be defined as 'the thesis that one "can understand an action if and only if it is a reasonable action". (Ibid., pg. 183.)
- 36 "Choice is always between alternatives, that is between several courses to be weighed in the same scale against each other, the one to be preferred." (Cf. J.L. Austin, "Ifs and Cans", pg. 166.)
- 37 Yet, this notion itself requires analysis. And, as has been observed, "decision and choice are intelligible only within the arena of action". (Cf. A.I. Melden, Free Action, pg. 203.) So that an adequate account of actions must also account for the choices which actions involve.
- 38 Implicit in this argument is the Kantian doctrine that 'ought' implies 'can', i.e., 'justification' implies 'capability'.
- 39 Taylor, op. cit., pg. 33.
- 40 Here, one might protest that, as a novice, he would not be capable of making this shot. And we must, of course, agree. For there is a strong sense of capability which

entails knowing how to do what one is capable of doing. But this is not the sense in which the expression is being used here. As I employ the expression, one is capable of doing something just insofar as it is the sort of thing he could choose to do or refrain from doing, and there are no known principles which would preclude his executing his choice. And, if anything, this weaker sense of capability is more current than the stronger. Indeed, all learning would seem to presuppose it. For, only if one were capable of doing something in this sense, could he ever learn (come to know) how to do it. Only if one believed himself capable, in this sense, would he have any reason to try. No one is capable of growing hair or squaring the circle. But, in the weaker sense, an infant is capable of beating Bobby Fischer at chess, or of becoming prime-minister. And it is in this sense that the novice billiard-player is capable of making his shot.

It might be noted that the strong sense of capability mentioned here would correspond to Richard Taylor's sense of ability about which he says that "no agent is able to perform any given act in the absence of conditions necessary for its accomplishment". (Cf. Metaphysics, pg. 64.) And, by refusing to acknowledge any other sense of the expression, he is able to reach his Fatalistic conclusion. His position might then be attributed to his myopia.

41 Insofar as experience provides us with such knowledge, it is 'the best teacher'.

42 Behaviour identified as action on this basis would be nonintentional action.

43 Cf. Gilbert Ryle, The Concept of Mind, pp. 27ff, 40ff.

44 I feel completely confident of my capability of baking a cake or tying a half-hitch, although I know how to do neither. Insofar as an infant has no mental or physical disabilities, it is capable of reading in English, French, or Chinese, although it obviously does not know how to do so.

45 The set [R], a subset of [T], includes those members of [T] which might serve as the (explicit) reason for an action. The set [S] is comprised of those conditions which must be satisfied in order that a request for reasons be appropriate.

46 Here, one might wish to suggest akrasia, or weakness of will, as a prime candidate. But it remains questionable that cases of this sort are even possible, much less actually occur. In any case, that such phenomena - whatever they amount to - could be accommodated by our programme will be demonstrated later in our discussion.

But even if, at this point, one were to introduce a counter-example which demonstrated [T]'s insufficiency, it might easily be avoided by adding a further condition to the set. And this would constitute no essential alteration in our general position. Such attempts at refutation would then appear to be quite fruitless.

47 Which I take to be essentially what Donagan means by "explanation by 'the logic of the situation'". (Cf. "The Popper-Hempel Theory Reconsidered", pg. 146ff.)

48 Dray, op. cit., pg. 132

49 If [T] enables us to explain J's A-ing, and if (1) through (7) are known to be true when another person's name is substituted for 'J' as it occurs in these conditions, then they must also assist in explaining his A-ing. The 'logic of the situation' continues to be the same regardless of who happens to be in the situation. When we speak of logic, whatever the context, we are speaking of general principles which govern certain relations, regardless of what particulars occur therein. Donagan would appear to have overlooked this fact.

50 See, Marcus Singer, Generalization in Ethics.

51 Donagan, op. cit., pg. 148.

52 Dray, op. cit., pg. 135.

53 Donagan, op. cit., pg. 154-155.

54 Loc. cit.

55 An action's being reasonable in the light of his situation might be said to imply "that if the situation had been as the agent envisaged it, then what he did would have been the rational thing to do". (Cf. William Dray, "Historical Understanding as Re-Thinking", pg. 178.) But that is quite another matter.

56 Winch, Peter, The Idea of a Social Science, pg. 82.

57 Dray, op. cit., pg. 124.

58 As was observed earlier, (cf. footnotes 4 and 13 above), these are all subject to stylistic variations. But this would, in no way, compromise our programme.

59 Throughout the foregoing discussion, 'J', 'U', 'A', and 'φ' have served as 'dummy' names, singular terms designating individuals. In [P] and [L], I shall employ these same symbols to represent the variables instantiated by these singular terms. When they occur in either of these assertions, they are intended to represent variables whereas in all other contexts they are intended as singular terms.

60 Both [P] and [L], as well as the sets which they represent, would of course involve us in quantification into epistemic (opaque) contexts. One might then object that both formulae are ill-formed in virtue of their involvement of this illegitimate operation. Yet, I believe that it has been generally recognized that "we have to countenance quantification into a context governed by an expression for an (opaquely construed) propositional attitude". (Cf. Jaakko Hintikka, "Semantics for Propositional Attitudes", pg. 157.) The important question is therefore not whether, but how this operation might be justified. With respect to this, I would be inclined to adopt the general approach taken by David Kaplan (cf. "Quantifying In"), Jaakko Hintikka (cf. loc. cit.), and Wilfrid Sellars (cf. "Some Problems about Belief"), who, despite many differences, would seem to advocate similar programmes.

CHAPTER FIVE

The Defence

In the preceding chapter, I developed a general description of a person's situation for the purpose of explaining his action. There, it was maintained that [T] comprises all the conditions which an agent must satisfy in order that his behaviour result from and thus, be explainable by, his reasons. With it, I proposed a reconstruction of the Dravian, (M_2), analysis of action-explanation. But, while an agent must satisfy all the conditions of this set and we must know, or assume, this to be the case in order that his behaviour be rationalized, we are not required to state all of them when explaining such occurrences. By distinguishing those members of the set which might be explicitly stated in explanation of a particular action, i.e., the subset [R], from those which must accompany them as tacit assumptions, viz., the subset [S], in order that such assertions succeed in explaining what was done, our analysis might then be made to coincide with the common practice of explaining actions in terms of reasons. And, when (M_2) was reconstructed on this basis, it was seen to satisfy many of the prerequisites for action-explanation. But,

in addition to a description of the agent's situation, such explanations must include a general assertion. To accommodate this, (M_2) 's advocates have argued that the generalization involved is a principle of action of the sort described earlier, rather than the empirical law proposed by their regulistic adversaries. However, such principles introduce a variety of problems all of which might be avoided, if the regulistic thesis could be sustained. Moreover, the form which principles of action assume, according to our reconstruction, is highly suggestive of the sort of laws which would be required for a regulistic analysis of action-explanation, i.e., laws of form [L]. If it could be shown that we do, in fact, possess such laws, we might then accommodate the insights of a Dravian account while avoiding its difficulties. Since laws of this sort imply principles of action, the latter's origins would then be easily explained. But, with such laws, these principles would be rendered quite redundant. For, they would no longer be required for action-explanation; the requisite laws would serve in their stead. With this, our general analysis of action explanation might be represented as

(M_7)

- i) (1) J believes that μ , and
- (2) J believes that, under conditions μ , A-ing will result in ϕ , and
- (3) J wants ϕ , and
- (4) J has no want (or set of wants) which either exceeds or equals

- his want for ϕ , and
- (5) J believes that there is no action, under conditions μ , which is as good or better, as a means of achieving ϕ , than A-ing, and
 - (6) J is capable of A-ing, and of refraining from A-ing, and
 - (7) J knows how to A.

ii) (J) (μ) (A) (ϕ) [If (1) J believes that μ , and (2) J believes that, under conditions μ , A-ing will result in ϕ , and (3) J wants ϕ , and (4) J has no want (or set of wants) which either exceeds or equals his want for ϕ , and (5) J believes that there is no action, under conditions μ , which is as good or better, as a means of achieving ϕ , than A-ing, and (6) J is capable of A-ing, and refraining from A-ing, and (7) J knows how to A, then (B) J A's].

Therefore,

(B) J A's,

or simply as

i) [T]

ii) [L]

Therefore, (B).

From this perspective, (M_2) would be seen as only a partial analysis of action-explanation which, if completed, takes the familiar form of the covering-law model.

When revised in this way, (M_2) might avoid all the objections raised against it. An action-explanation, according to this analysis, would be an enthymeme, an explanation-sketch which

consists of a more or less vague indication of the laws and initial conditions considered as relevant, and...needs 'filling out' in order to turn into a full-fledged explanation.¹

On this reconstruction, however, (M_2) would no longer be acceptable to anti-regulists. For it would now fall within the regulist scheme. And, since such revisions would enable us to avoid the difficulties which confront that model, this would strongly recommend their adoption. Moreover, since explanation in social science is essentially action-explanation, if such an analysis were espoused, one model of explanation, viz., the covering-law model, would accommodate all the sciences, social as well as natural. Parsimony as well would then favour our account. In the light of such considerations, an analysis of the sort proposed here would seem preferable to its rivals.

I

Yet, unless we were actually acquainted with [L] and the other members of the set which it represents, action-explanations could still not be of the model described above. But can we legitimately claim knowledge of such laws? Now, by establishing the various factors to be included in a description of an agent's situation for the purpose of explaining his action, i.e., those features

designated by 'a situation of type C' as it occurs in (M_2) , we are, in fact, stating the conditions which must be satisfied in order that an agent's reasons bring about his action so that an appeal to his reasons might explain his behaviour. And [T], it was argued, provides us with an exhaustive description of these requirements. Should any member of this set be unsatisfied, it would be generally denied that J's A-ing resulted from his reasons and hence, that his behaviour could be explained on that basis. Should all these conditions be satisfied, however, we would recognize that what J did resulted from his reasons and, depending upon how the event was identified, we would accept either condition (1), (2), or (3), as the reason which explained it. This set of conditions, it will be recalled, was obtained by considering the kinds of objections which might commonly be raised against particular action-explanations. Our approach was that of the informed language-user; the objections were those which might be raised by anyone who understood the language, i.e., was familiar with the concepts thereby expressed, might be expected to raise. We might, therefore assume that there is general agreement with respect to these conditions. In that case, however, it would also be agreed that, where [T] was satisfied, J's behaviour resulted from his reasons and must be explained on this basis. But how are we to account for this consensus?

Why is [T] so readily recognized? This might be explained by the fact that all who are acquainted with the language know, either explicitly or implicitly, and accept a set of principles like [L]. Nor would there seem to be any other plausible explanation of the agreement we encounter on such matters. That there is such a consensus would then constitute some evidence that we actually possess such laws.

But even if there are such principles, many would protest that they "cannot be sharpened into the kind of laws on the basis of which accurate predictions can reliably be made".² However, we require empirical laws, not only for the explanation of natural phenomena, but for their (scientific) prediction as well. And since principles of the sort represented by [L] could not sustain prediction, they would not merit recognition as laws. Thus, even if (M₇) described the form of action-explanation, the generalization which that model involves would not be an empirical law; the model as a whole would not then satisfy the covering-law condition and could not therefore be regarded as covering-law. On these grounds, one might then argue that (M₇) is quite compatible with the anti-regulist programme and that it is not, in fact, a covering-law model of action-explanation.

Now, while it must be admitted that [L] and assertions like it lack the precision of scientific laws, it is by no means apparent that one cannot, with their assistance, make

reasonably accurate predictions of what people will do. We are able, on many occasions, to anticipate a person's action. And knowledge of such generalizations might well be the means by which this is accomplished. But even if this were not the case, it would still not oblige our denying their nomological status. For, among laws, they would not be unique in this respect. We are frequently obliged to appeal to lawlike generalizations which are insufficiently precise to enable accurate prediction. Long before science provided its more exact principles, common-men explained the phenomena of their experience - a body's falling, a kettle's boiling, the freezing of water - by appealing to pre-scientific laws which, although perhaps vague in many respects, function in much the same way as their more sophisticated successors. And most still do. Unless one is prepared to deny the possibility of both explanation and prediction on this basis,³ he must acknowledge that an assertion's imprecision is insufficient to warrant our denying its lawfulness. Despite their vagueness, such generalizations were accepted and employed as laws until better were available. And, while we might be required to admit that [L] and its kin are laws of this sort, this would not prevent our recognizing them as laws. Gaps in our knowledge are frequently bridged by ceteris paribus clauses. Where our knowledge is incomplete, our laws might be expected to reflect our ignorance. Yet, this would not compromise their lawfulness. Indeed,

one of science's tasks is to investigate such pre-scientific principles⁴ in order to confirm and refine them. Through such an enquiry, we obtain a more precise system of empirical laws. But even such sophisticated substitutes are not free from imprecision. Boyle's law, for example, "is accurate only for gases of very low density".⁵ And other scientific laws suffer from similar limitations. We would, nevertheless, continue to recognize such assertions as laws. Scientific laws would then differ from those of the pre-scientific variety only in their degree of imprecision. And that assertions like [L] must be classified among the latter would not constitute a refutation of their lawfulness. However, to distinguish them from the more precise laws of science, we might refer to [L] and the other members of the set which it represents as law-sketches.

Yet, those who raise the foregoing objection are unlikely to be so easily dissuaded. For it is not just the fact of [L]'s vagueness that causes them to deny its lawfulness, but rather that because of such imprecision [L] could not sustain prediction. And we have not, as yet, responded to such charges. In this regard, it might be observed that one could only know that [L]'s antecedent conditions were satisfied after the occurrence of the event described by its consequent. As a result, such assertions would not serve as a basis for prediction. For this reason, many would maintain that they could not be

nomological. But this would still not justify their claim. For, even among the laws which science provides, it is frequently the case that "we do not know independently of the occurrence of the explanandum event that all the conditions listed in the explanans are realized".⁶ Such laws would not allow for prediction either. Yet, for all that, we would still maintain their nomological status. Where a dispositional state occurs among the initial conditions, its fulfillment may only be established by the occurrence of the event to which it was a contributing cause. And, while we may continue to seek laws having initial conditions whose occurrence might be established prior to the occurrence of the event described by their consequents, until such are obtained we continue to use those we have and to accept them as nomological. Moreover, where law-sketches like [L] are concerned, it would appear to be neither

logically nor nomologically impossible...for us to know the critical explanatory factor[s] before, or independently of the occurrence of the explanandum event; the impossibility appears to be rather a practical and perhaps temporary one, reflecting present limitations of knowledge and technology.⁸

Although, at present, we may have no way of independently establishing the existence and the relative strength of a person's desire and beliefs, that we could never do so is far from obvious.⁹ Advancing technology might one day provide the means by which [L] and its kin could be refined so as to permit prediction. It is therefore not

necessary, as those who raise the foregoing objection presume, that an assertion sustain prediction in order that it merit recognition as nomological. Even if [L] and similar statements do not enable prediction, since they would support counter-factual and subjunctive conditionals as well as satisfy all the other conditions of lawfulness, this alone would be sufficient to justify our recognizing them as nomological generalizations. Neither [L]'s vagueness nor its failure to serve as a basis for prediction would then warrant our denying its nomological status.

It is frequently argued that the laws which regulists invoke "are either spurious or untrue".¹⁰ Where they are stated as empirical generalizations, they are demonstrably false; where no such demonstration can be provided, these "putative laws are...thinly disguised tautologies".¹¹ And, in either case, we would be obliged to deny that they are nomological. If we are then to sustain our account of action-explanation, we must meet both of these objections and show that [L], and other members of this set, are vulnerable to neither. Let us first consider whether [L] and principles like it are true. That is, is it not the case that people have actually satisfied all the antecedent conditions of these principles, yet failed to perform the relevant action? This would seem to raise the perplexing possibility of akrasia, weakness of will. Are there such cases and would they not falsify [L]? A plausible way of accounting for examples of this sort, were they to arise,

would be to say that either the agent in question was unable to decide upon what he wanted, or upon the best way of achieving it, i.e., maintain that either conditions (4) or (5) of [T] was unsatisfied. If that were the case, however, they would represent no threat to [L]. But even if, for some reason, this were considered unacceptable, such cases might be accommodated in yet another way. For, there is no reason why we could not introduce ceteris paribus clauses to cover such anomalies. By stating that, given the antecedent conditions and barring vitiating factors, the agent performs the designated action, we would allow for such possibilities while still preserving [L]. As was acknowledged earlier, [L] and similar assertions manifest the imprecision of all pre-scientific laws; they are law-sketches rather than fully developed scientific laws. But this would not compromise their nomological status. To introduce ceteris paribus clauses, as I have suggested, would only render them somewhat vaguer. However, in all other respects they would remain essentially unaltered and might still be recognized as laws and function in that capacity. Indeed, if we actually employ such generalizations in our action-explanations, such an addition might provide a better representation of the vague and imprecise knowledge we have of them. Counter-examples of the sort which we have considered might then be accommodated by our analysis and would not therefore represent a threat.

Yet, it continues to be exceedingly difficult to imagine a case where [L] would be false.¹² In order that it be refuted, however, such a case must not only be imagined, it must actually be produced. And that such disconfirming instances occur so that we might discover them and use them as evidence surely seems questionable. But even if we were presented with a situation which succeeded in demonstrating [L]'s falsehood, this would still not shake our position. For [L] might well be false, as might many of the scientific laws which we presently accept. But I am not committed to maintaining [L]'s literal truth, nor would I wish to be. My thesis would only require that [L], and assertions like it, are accepted as true descriptions of nomological regularities and presupposed by our action-explanations. And this is quite consistent with their falsehood. I would only wish to maintain that [L] and others of the set are accepted as laws and hence, as true. I am not arguing for their truth. Indeed, the history of scientific advancement would strongly suggest that, like other pre-scientific laws, this set will one day be abandoned, considered to be false, and replaced by a more refined system. That is, there is good reason to believe that the nomological generalizations which we presently employ in our explanations of action will eventually be reduced to a more comprehensive set of explanatory principles.¹³ But it does not,

of course, follow from this that people do not at present accept these principles as true and lawful. And this is all that my analysis requires. Even if [L]'s falsehood were demonstrated, my position would continue to be quite defensible.

But this brings us back to the second prong of the attack. For, having admitted that it is difficult, if not impossible, to imagine cases which would disconfirm [L], it would now seem that we must fall prey to the objection that this assertion, and those like it, are actually analytic statements and hence, could not be nomological. To meet this challenge, we might observe that it presupposes the traditional account of analyticity, i.e., the view that all statements might be unequivocally classified as either analytic or synthetic. Yet, as so many have observed,

over and beyond the clear-cut rules of language, on the one side, and the clear-cut descriptive statements, on the other, are just an enormous number of statements which are not happily classified as either analytic or synthetic;¹⁴

"There is no sharp line between analytic statements and synthetic statements."¹⁵ On the strength of such arguments, we might then dismiss this objection as ill-conceived. However, even if we were prepared to admit the analytic/synthetic distinction as it is traditionally construed, those who raise the foregoing criticism of our position would now be required to offer some proof of their conten-

tion. That is, they must provide some evidence that [L] and assertions like it are, in fact, analytic statements. If this were true, one might expect that it might be easily demonstrated. Yet, "an examination of the logical status of hypothetical statements relating 'intentional' factors such as wants and beliefs to actions...does nothing to show that such statements are logically true in such a way as to prevent them from being causal laws".¹⁶ While many have made such allegations, little in the way of proof has been offered. In that case, however, the intended refutation must fail. Such claims would not then prevent our recognizing [L] and the other members of the set which it represents as lawful assertions. And with this, we remove the principal obstacles to our analysis.

Now, it has been maintained that

in order to speak about any kind of entity whatsoever and thus, a fortiori, to consider their existence or nonexistence, one must first accept the 'linguistic framework' which 'introduces the entities'...one must understand the meanings of the linguistic expressions (sentences and terms) referring to them...such expressions have no meaning unless they are given a place in a linguistic framework.¹⁷

A linguistic framework of the sort spoken of here might be thought of as an interrelated set of rules, laws, or principles. In virtue of the relations which hold among these principles, certain relations among their constituent terms will be established. In this way, such expressions are

implicitly defined by the linguistic framework in which they occur, i.e., all the relationships in which they stand to other expressions introduced by the system are specified. Each of the constituent principles of such a network contribute to the specification of how the terms thereby introduced are to be correctly employed, i.e., to the meanings of these expressions. And because they are defined in terms of the relations in which they stand to other expressions introduced by the system, in order to understand any term included in such a set, one would be required to understand all the others as well. But, since the meanings of these expressions are determined by the principles of the framework, such an understanding would require one's knowing all the principles of which it is composed. Thus, insofar as an expression derives its meaning in this way, understanding it would amount to knowing the various relations in which it might be correctly said to stand to other expressions introduced by the framework and hence, knowing how the entities which it is intended to designate are related to those designated by other terms of the system. But this, in turn, amounts to knowing the various principles by means of which they are implicitly defined. Insofar as one knows the meanings of the expressions introduced and implicitly defined by a particular linguistic framework, he would then know the principles of which that network was composed, regardless

of whether he were able to recite them or not. Accepting such a framework would then amount to recognizing its constituent principles as true, descriptive assertions, or simply knowing the meanings of the expressions introduced and implicitly defined by such a system, using those terms for making reference to actual objects, things in the world, and believing that they succeed in designating real entities. And many have maintained that

we are working within [such a] framework when we explain a man's actions by reference to his reasons for performing them.¹⁸

That is, expressions like 'reason', 'person', 'belief', 'want', as well as a variety of related notions, it has been argued, are introduced and implicitly defined by the linguistic framework which people are accustomed to employing when describing human behaviour.¹⁹ In that case, however, an understanding of such notions would presuppose knowledge of the system of principles which introduced them. "To account for such knowledge, we are told that, when one learns the correct usage of such expressions, he is, at the same time, learning the rules by means of which they are implicitly defined, i.e., the various principles of the linguistic framework which introduces them. And, while such knowledge may remain tacit, it must nevertheless be recognized.

It might now be maintained that [L] and the other

members of the set which it represents are, in fact, laws belonging "to that peculiar explanatory framework enshrined in everyday discourse and applied to human action".²⁰ If this were the case, however, it would not be surprising that some would mistake them for analytic statements. Given their deep entrenchment, they might be expected to appear quite trivial. Moreover, since they do partially define these notions and are learned implicitly when we learn the meanings of such expressions, how one might come to think of them as mere definitions is easily understandable. But, despite these facts, closer inspection reveals that such assertions are not analytic in a way which would preclude their lawfulness. Were this the case, science could claim no theoretical laws whatsoever. Whether such principles are nomic would depend upon how they were used in our judgements of fact. But, if [L] and its kin were principles of this sort, the latter objection, viz., that they are analytic statements and could not therefore be nomological, is precisely the sort of criticism that one would expect to encounter. That it has actually been raised would then constitute some evidence in support of this account.

Among regulists, there has been a long-standing disagreement as to whether the laws governing action-explanation are deterministic or probabilistic. According as to which of these alternatives one adopts, his model of

action-explanation will be either Deductive-Nomological (D-N) or Inductive-Statistical (I-S). And regulists have invariably adopted one of these analyses. But, as the laws occurring in such arguments become more imprecise, our ability to classify them as either deterministic or probabilistic declines, and the distinction between these alternative models is blurred. Whether principles which have been qualified, either explicitly or implicitly, by ceteris paribus clauses are to be recognized as probabilistic, or whether they would be more correctly seen as vaguely formulated deterministic laws, remains quite unclear. Nothing in the nature of these assertions would enable us to settle the question. And the common-sense principles, pre-scientific law-sketches, which we invoke in our explanations of action are, we must admit, imprecise. It would then seem that the laws which govern action-explanation and which underlie social science cannot be clearly classified as either probabilistic or deterministic. Only if their inherent vagueness were expunged would this be possible. To achieve this, however, one would be obliged to make certain fundamental changes in these principles themselves. And, if they implicitly define the notions which we apply to human actions in the manner described above, modifying them in this way would result in essential changes in the intentions of those expressions and hence, in the nature of the entities which they are meant to designate. The terms

which they introduce would no longer have the same meaning, nor designate the same objects. We would, in short, be required to abandon the principles which we presently employ in such contexts for a new set to which this distinction applies and, in the process, change the meanings of all the expressions which they implicitly define. And this would amount to reducing²¹ them to another set. But if, in order to apply the probabilistic/deterministic distinction to the laws employed in action-explanation, we are required to abandon those laws and replace them with others, one could only conclude that, with respect to these laws, the distinction has no application, i.e., that the principles presently employed in our explanations of action can not be appropriately classified as either deterministic or probabilistic. In that case, it would be equally inappropriate to classify arguments in which such laws occur, i.e., action-explanations and action-predictions, as either Deductive-Nomological (D-N) or Inductive-Statistical (I-S). When the laws in question are rigorously formulated scientific laws, such distinctions would most assuredly have their place. But, when we are dealing with imprecise, pre-scientific law-sketches of the sort employed in our explanations of action, such distinctions cannot be properly drawn. The dispute between regulists who advocate a D-N analysis and those who support the I-S might therefore be dismissed as a purely verbal dispute. If the foregoing account is

correct, although action-explanations might satisfy all the conditions of the covering-law model, they could be regarded as neither Deductive-Nomological nor Inductive-Statistical. But this, in turn, would require a revision in our conception of the covering-law model. For, we would then be obliged to admit that there are covering-law explanations which are neither D-N nor I-S.²²

But there remains one facet of the anti-regulist programme for which we have not, as yet, offered an account, that is, the sense in which action-explanations might be said to justify behaviour. For, while it is apparent that, when we show that an agent's acting as he did to have been the reasonable thing for him to have done under circumstances as he perceived them, i.e., when we rationalize his action, we are not demonstrating its rationality,²³ both anti-regulist models, viz., (M_1) and (M_2), would nevertheless represent action-explanation as, in some sense, evaluative. That is, according to them, such explanations succeed by showing "that the situation entitles a man to act in the way he did".²⁴ And common practice would appear to substantiate this. For, when one gives reasons, he would indeed seem to be attempting to "exhibit what was done as appropriate or justified".²⁵ According to our account, however, such explanations are purely descriptive; the explanans contains no normative component. How then are we to accommodate this feature?

Now, it must first be observed that, in order for J's A-ing to be explained according to (M₇), the explanans must describe the reasoning, whether explicit or implicit, which actually led to J's behaving in this manner.

When we...consider ourselves justified in accepting an explanation of an individual action, it will...assume the general form of an agent's calculation.²⁶

J must have had all the beliefs, desires, etc., as described by (T) and his having them must have resulted in his acting in the manner described by (B). Should either of these requirements fail, (M₇) would not succeed in explaining what was done. These conditions, moreover, might be satisfied even though the agent is not overtly conscious of having the requisite mental states, beliefs and desires. One's beliefs and desires need not be explicitly formulated in either thought or speech in order that they serve in deliberation and ultimately issue in action. Many of our most basic assumptions remain tacit and only find their expression through action.²⁷ We frequently act and, if required to do so, could provide a well-reasoned defence of our action even though we were not aware of having performed such deliberation prior to acting. Much of our practical reasoning proceeds subliminally, never emerging as conscious thought. Indeed, one might even disavow the very beliefs and desires which motivated his behaviour. Self-deception and hypocrisy are,

after all, familiar human frailties. That an agent is unable to give an adequate account of the reasoning which led to his action would not therefore establish that he had not deliberated prior to acting.²⁸ For, unless he had, rationalization of his behaviour would be quite impossible. Indeed, it would not be an action at all.

In so far as we say an action is purposive at all, no matter at what level of conscious deliberation, there is a calculation which could be constructed for it; the one the agent would have gone through.²⁹

The reasoning process, whether it be explicit or implicit, which results in an agent's performing a particular action might be referred to as practical reasoning or deliberation. (M₇) might then be said to describe the particular piece of practical reasoning which resulted in the action to be explained. When performing such reasoning, the agent uses his beliefs and desires, i.e., those which are described by the explanation of his action, to determine what he will do. On this basis, he evaluates the various alternatives, selecting the best which he thereupon performs.³⁰ Such a process is most certainly evaluative, consisting in an appraisal of alternative actions in the light of what the agent believes and desires. But, when one describes this process, he is not indulging in practical deliberation; he is, instead, stating how the agent arrived at a particular evaluation. This, however, is not itself an evaluation. In such a description, one

mentions rather than uses the various beliefs and desires by means of which the agent reached his decision. Just as the statement "He shouted 'Help!'", while it describes a plea for assistance, is not itself such a plea, so too the description of a particular piece of practical reasoning, i.e., an action-explanation, while it describes an evaluative process, is not itself evaluative. The divergence between practical reasoning and the explanation of the action to which such reasoning led might then be seen as yet another instance of the familiar 'Use/Mention' distinction. When deliberating, one uses his beliefs and desires to make the evaluation upon which he acts. When explaining this action, however, we are describing the process of deliberation and in so doing, mention those beliefs and desires which brought it about. Describing how a person arrived at a particular evaluation does not involve one in making that, or any, evaluation. Such a description remains normatively quite neutral, although that which it describes does not. Overlooking this is merely another commission of the classical fallacy. And it is this oversight that has led many to identify the explanation of actions with their justification.

It will also be observed that when one reasons to a practical conclusion, while he may proceed in the manner described by [L], that assertion could not be a part of his reasoning process. It would not occur among the beliefs

and desires which he uses to reach that conclusion. Such law-sketches describe how an agent's particular beliefs and desires are related to the outcome of his practical deliberation. If they are true, i.e., if the agent's beliefs and desires are actually related to his action in the way they describe, an agent's deliberation must correspond to their description. They would then represent the form of practical reasoning. To be recognized as practical reasoning at all, a process would be required to proceed in the manner represented by such assertions. But the description must be distinguished from what it describes. These law-sketches could not be a part of the process which they represent. While, on any particular occasion an agent's practical deliberation will manifest the formal structure described by these statements, the description of its formal characteristics, i.e., an assertion of form [L], could not be a part of his deliberation. He would not use them when reasoning to a practical conclusion. The law-sketches which we have been discussing could not therefore be a part of practical reasoning. When we describe this process, however, an adequate representation must not only include its elements - the particular beliefs and desires of which it is composed - but must also indicate the relations which hold among these elements, the rule according to which such a process proceeds. Action-explanations, as descriptions of practical reasoning, must then

include a description of these relations. And this would be provided by [L] and the other statements of the set which it represents. Thus, while [L] and its kin would not be a part of our deliberations, they must be included in the explanations of behaviour which results from such reasoning.

In the light of such speculations; the point of Donagan's analysis, viz., (M_1), becomes clear. For, his account might now be seen as an attempt to show that an individual's practical reasoning constitutes the grounds for an explanation of his actions. And in this respect, he is quite correct. Practical reasoning is the basis for action-explanation and it includes no general principles, except insofar as they occur as particular beliefs. But Donagan fails to recognize that (a) the description of practical reasoning is not itself a piece of practical reasoning, that (b) these descriptions must not only include the elements of the process, but also the rules according to which such reasoning proceeds, and finally that (c) action-explanation is a description, rather than an instance, of practical deliberation. And it is his failure to draw these distinctions that leads him to the conclusion that action-explanation "is not based on any universal hypothesis whatsoever".³¹ Insofar as his account draws attention to the central role of practical reasoning in action-explanation and concerns only such deliberation,

it would provide us with a valuable insight. However, his contribution has been vitiated by his failure to distinguish between this process and its description.

Although action-explanation describes a reasoning process which is essentially normative, viz., practical reasoning, it is not itself normative. The failure to distinguish action-explanation from practical reasoning has resulted in the general neglect of this fact. For, in our own cases, each of us is frequently obliged to perform both operations. That is, we perform pieces of practical reasoning which result in behaviour, and are then obliged to describe it (or some portion of it) in explanation of what we did. And in order that these descriptions, our reasons, actually explain our behaviour, what they describe, viz., the particular pieces of practical deliberation, must, at least at the time of our performance of the behaviour in question, be accepted as justifying what was done. In such cases, the one providing the explanation must also have made the appropriate evaluation. But this results from the explainer's peculiar relation to that which is being explained and would only hold under such circumstances. Moreover, while the one explaining his own action must also have made the appropriate evaluation, he is not making such an evaluation when he constructs the explanation. Even here the distinction might still be maintained. Yet, since an individual's explanations of his own actions are among the most common action-explanations,

which we encounter, it is all too easy to overlook such distinctions and conflate the reasoning process which led to that behaviour with the description of that process, i.e., with the explanation of the resultant action. And, since the former is inherently normative, the latter would then be so regarded as well. By generalizing, one might then reach the conclusion that, in all cases, "we explain an action by representing it as the right thing to do",³² i.e., that all action-explanations are essentially normative. And many have followed this path. Nor is it always clear whether, when one offers reasons for his action, he is actually performing an overt act of practical reasoning and hence, justifying his performance of a particular piece of behaviour, or whether he is describing that process (or some portion of it) in order to explain (or predict) his behaviour. Such difficulties are particularly prevalent where the action in question is still to be performed. Thus, "it is easy to mistake a justification for a piece of behaviour for an explanation of it".³³ Furthermore, it is, as a rule, practically quite unnecessary to make such distinctions. Their neglect will rarely, if ever, have practical consequences. They might therefore be easily overlooked. And stylistic factors tend to result in further obscurity.³⁴ For example, when describing an agent's beliefs in explanation of his action, only if his ~~belief~~ is thought to be false are we likely to

acknowledge it explicitly as a belief. Otherwise, we are accustomed to stating what was believed, i.e., the content of his belief, without further comment. However, when the agent's beliefs are regarded as true, reference to them would be of essentially the same form in both deliberation and action-explanation. Under such circumstances, it is therefore quite unclear as to whether one's reference to his beliefs is intended to indicate that he is in the process of using them to reach a practical conclusion, or that he is mentioning them in a description of how such a conclusion was (or will be) reached, i.e., whether they are being offered in justification or explanation (prediction) of the action. And desires are treated in much the same way. It is therefore not surprising that the distinction to which we have drawn attention has passed largely unnoticed. Since it is often difficult to distinguish between these operations, many have concluded that there is, in fact, no distinction to be drawn; But such an inference is surely fallacious and has led to the errors of our predecessors. When we describe the practical reasoning of others in explanation of their actions, and particularly when we regard their beliefs and desires as mistaken or bizarre, the distinction between action-explanation and practical reasoning becomes evident. We might then conclude that, while (M₇) describes how an agent, J, endeavours to justify his action, A-ing, through

his practical deliberation, our description, per se, would have no normative import. And it is just such descriptions which we recognize as action-explanations. In this way, we might accommodate the anti-regulist insights without compromising the obvious distinction between the explanation of an action and the justification of its performance.

According to our earlier discussion, the laws required for action-explanation could not be derived from any of the disciplines which we presently regard as sciences and particularly, those recognized as natural sciences. The precise scientific principles obtained from such sources are, we must admit, "irrelevant to the behaviour to be explained".³⁵ In this respect, we must concur with the anti-regulists against those whom we have characterized as traditional regulists. But this would not commit us to an anti-regulist programme. On the contrary, if the foregoing arguments are sound, a regulist account might still be maintained and would prove to be preferable, by the appropriate criteria, to the one(s) which they propose. Rather than the precise laws derived from any particular science, either natural or social, if such explanations actually involve empirical laws, they must be of the imprecise, pre-scientific law-sketch variety described earlier, laws of the sort which common men employ in their daily encounters with the world and which scientists

develop and refine in the pursuit of their science. And it is laws of this sort that [L] is intended to represent. On this basis, I shall endeavour to defend the regulistic analysis.

But, our rejection of traditional regulism must not be construed as denying that scientific laws have or could have any application whatsoever in our investigation of human behaviour, or as the claim that the notions which we presently employ in connection with persons and their behaviour, and the system of laws which we presently employ in that context are, in some sense, 'ultimate' and 'irreducible'. On the contrary, such a reduction is quite possible, probable, and perhaps even desirable. For, if we should obtain a linguistic framework of the sort described earlier which proved to be superior to the one in terms of which we presently conceive of persons and their behaviour, through the mediation of correspondence rules, the system of laws which we now employ might well be reduced to this more comprehensive set. And, if such a system of laws is ever to be obtained, we would expect science to provide it. Moreover, both the direction and the rate of scientific progress, as well as the observation of similar reductions in the past, would constitute good grounds for anticipating such a revision. Indeed, it is quite possible that we are, at present, in the throes of precisely this kind of transition. And psychology would

appear to be at its vanguard. If traditional regulism were then interpreted as maintaining that, rather than being components of action-explanations as we presently construct them, the laws provided by (some particular) science will ultimately assist in the explanation of phenomena which we now identify as human actions - i.e., that our present conception of human behaviour will eventually be reduced to one derived from (one of) the sciences and that it is the laws obtained from (that) science which will enable us finally to construct the correct explanations of what occurs on such occasions³⁶ - their position becomes eminently reasonable. Nor would such a construal of their thesis be completely implausible. For explanation and (theoretical) reduction have not always been clearly distinguished.³⁷ Moreover, insofar as our present conception of human behaviour and the laws which govern it are vague, while they may satisfy all our practical requirements, they would not enable a precise description of such phenomena. And to that extent they might be regarded as strictly false. But, if these generalizations were false, then the arguments in which they occur could not succeed in explaining what happened. Strictly speaking, they would not be explanations at all. And this might well be the point that traditional regulists endeavour to make. That is, they might be understood as maintaining that only when science provides us with a complete and accurate account of

human behaviour and a precise description of the laws which govern it will we truly understand what actually occurs. When interpreted in this way, their thesis is unlikely to encounter serious opposition. If we were to adopt so rigorous a standard, however, we might well be obliged to deny that we are acquainted with any laws or explanations whatsoever and hence, that there is anything that merits recognition as a science. And such a view seems far too austere. To avoid it, we must admit that, although imprecise, a generalization might nevertheless still be nomological and the arguments in which it occurs, explanatory. While traditional regulists might then be seen to make a sound point, ultimately their analysis must also be abandoned.

Against anti-regulism, I have argued that the explanation of human action involves an appeal to empirical law. Yet, insofar as they deny that the laws required for such purposes are the rigorous scientific principles provided by (one of) the sciences, our positions coincide. The laws which occur in our action-explanations could not be those devised by the scientist. They are, instead, pre-scientific law-sketches, the imprecise common-sense laws which serve ordinary men prior to the refinements of science. - And [L], I contend, is a law of this type; it and the other members of the set which it represents are the laws tacitly assumed by our explanations and predictions.

of human action. But, while we presently employ such laws in our action-explanations, I have argued that, if science should provide a more precise and comprehensive set, those we now use might well be replaced, reduced to this new system of laws. Yet if, as was described earlier, the terms which we use with respect to persons and their actions are implicitly defined by the system of law-sketches, [L] and its kin, we presently employ in our explanations of human action, such a reduction would result in a radical revision in our conception of actions and of all related notions. For, with the new network of laws, we would be introducing a new set of expressions having distinct meanings and hence, designating entities with quite different characteristics. Accepting such a framework amounts to recognizing that the expressions thereby introduced succeed in designating actual entities and acknowledging the laws of which it is composed as true descriptive assertions. Reducing our present system of law-sketches would then be tantamount to transferring such recognition to the reducing system. Terms which were primitive in the former would, insofar as they continue to be used, become derivative expressions in the latter, defined in terms of the expressions introduced by the reducing framework. And this amounts to an "elimination of the referring use of the expressions in question".³⁸ Whereas formerly expressions like 'action', 'belief',

'want', 'person', etc. were used to make direct (noninferential) reference to the objects of our experience, a new set of expressions, primitives of the reducing linguistic framework, would now perform this function. And these expressions would now be understood in terms of the new set. But this would be nothing short of denying that the expressions so reduced succeed in designating anything whatsoever, that entities of the sort to which they make reference actually exist and hence, could be denoted or explained. Rather than entities of the sort designated by the terms which are reduced, we would now recognize only those objects referred to by the expressions introduced by the reducing framework. Thus,

what happens where transition is made from a restricted theory T' to a wider theory T (which is capable of covering all the phenomena which have been covered by T') is something more radical than incorporation of the unchanged theory T' into the wider context of T. What happens is rather a complete replacement of T' by the ontology of T and a corresponding change in the meanings of all descriptive terms of T' (provided these terms are still employed).³⁹

In short, such a reduction would be tantamount to an outright denial that there are phenomena of the sort which we presently identify as human actions. But, if there are no actions, then there are no actions to be explained. Whatever it is that the laws of science explain, it could not then be actions as we presently conceive of them. If, after such a reduction, the term 'action' continues to be

employed, both its intension and its extension will differ from those which we now associate with it. Since, by adopting such laws, we would be denying that there are actions as they are presently conceived, scientific laws could not therefore assist in their explanation. But it is just such phenomena, viz., the actions of persons as they are now identified, that are the ultimate objects of social scientific inquiry. Although the social sciences too might eventually be reduced so that they no longer acknowledge phenomena which we now identify as human actions, this has not yet occurred. As they are presently pursued, they continue to be primarily concerned with human action as it is conventionally recognized. Thus, social science, as it is now conducted, could not depend upon the laws of a specialized science for its explanations. In its explanations, it too must therefore invoke the pre-scientific law-sketches described earlier in its explanations. No appeal to scientific laws could then assist in our elucidation of either action-explanation or of contemporary social science. However, this would not preclude the possibility that, at some time in the future, viz., after the envisioned reduction had taken place, a correct description of social scientific explanation would be required to make reference to the scientific principles of a particular science, perhaps psychology or neurology.⁴⁰ But since my analysis is intended to be descriptive, while it must allow

for the possibility of such revision, its primary objective is to represent social science as it is, rather than as it will be.

The laws governing human action might then be said to take the general form [L]. In conjunction with the appropriate set of singular statements, a law of this sort would provide us with explanations and predictions of such phenomena. And these, according to our analysis, would take the form of (M₇) which satisfies all the conditions of the covering-law model. Yet, the network in which they are components would include law-sketches which govern other human phenomena, e.g., beliefs, wants, etc., as well. And these, we might expect to be of a somewhat different logical type. Their form, and that of the explanations in which they occur, might be established in much the same way as was that of the law-sketches and explanations concerning human actions. By this method, we might then reconstruct the system of pre-scientific law-sketches in terms of which we approach the entire spectrum of human experience.

II

But let us now reconsider action-identification and the various issues introduced by that topic. According to our earlier analysis, an occurrence for which reasons are both necessary and sufficient conditions would be identified

as an action. As we have seen, however, reasons might take different forms; they might be described as a belief, or as a desire. And beliefs and desires are not the sorts of things which present themselves for public inspection. Our account of action-identification would then leave us with two additional questions, viz.,

(i) How are we to recognize the occurrence of beliefs and desires?

and

(ii) How are we to determine that such phenomena, i.e., beliefs and desires, actually gave rise to a particular event?

And the adequacy of our analysis would depend upon our providing satisfactory answers to these questions.

Now, it is apparent that only persons can be properly said to have wants and beliefs.⁴¹ While we may attribute such states to other beings, our usage on such occasions could only be understood as metaphorical. Moreover, insofar as an individual is recognized as a person, he is regarded as having beliefs and desires which may be either standing or occurrent. Although we may have absolutely no conception of his particular beliefs and desires, seeing someone as a person in the required sense amounts to recognizing that he undergoes such states. But this would now enable us to answer the first of the preceding questions. For, when we identify someone as a person, we acknowledge that he is experiencing beliefs and desires and hence, that such

phenomena are taking place. Yet, this would only seem to lead us to an even more perplexing question, viz.,

(iii) How do we identify persons?

[or alternatively, How do we identify the sort of being that experiences beliefs and desires?]

It then seems apparent that "the concept of agency is necessary for the understanding of human behaviour".⁴² We are therefore obliged to consider this notion briefly.

Yet, even if we should succeed in answering this question, it would still not resolve our problem. For, while it is true that only persons have reasons, i.e., beliefs and desires, which result in behaviour, they also do many things which are not brought about in this manner. In addition to their actions, they participate in mere behaviour which does not result from their beliefs and desires. With respect to such phenomena, the fact that the participant happened to be a person is quite irrelevant to the event's occurrence. All else being equal, it would have taken place regardless of whether the performer was a person - had reasons for acting - or not. It is only with respect to his actions that one's being a person, having reasons, is necessary in order that the event take place. Thus, only in such cases would one's being a person be a relevant consideration. With respect to his actions and only his actions, one might then be said to perform as a person. If we are then to differentiate actions

from other kinds of phenomena, we must not only identify the performer as a person, but we must also recognize those occasions upon which he performs as a person with respect to his behaviour, i.e., recognize when the event would not have taken place had the performer not been a person. That is, we must answer the question

- (iv) How do we establish that an individual performs as a person with respect to a particular piece of behaviour?

[or alternatively, How do we determine that a particular piece of behaviour would not have occurred had the participant not been a person?]

An answer to this question would also provide an answer to (ii) and ultimately, a solution to our problem. In order to recognize performers as persons, however, one would be obliged to identify persons. That is, an answer to (iv) presupposes an answer to (iii). We must therefore begin such an inquiry with the latter question, i.e., with a discussion of the criteria by means of which we identify persons.

Regardless of a strong tradition to the contrary,⁴³ it is evident that certain obvious physical characteristics customarily serve as the grounds for our decisions as to which of the entities we encounter are persons, and which are not. One uncorrupted by philosophy would look no further. Anything having certain familiar physical features⁴⁴ would then be commonly recognized as a person.

And this criterion is quite adequate to our everyday needs. Yet, if a machine were to manifest all the observable characteristics and behaviour of a man, it would still not be recognized as a person. An entity's identity as a person could not therefore be conclusively established on this basis. While this is undoubtedly the most common, convenient, and reliable indicator of persons, it does not provide us with an iron-clad guarantee. Although perhaps highly unusual and even unlikely, it nevertheless continues to be possible that entities manifesting these characteristics are not persons, while others which do not are.⁴⁵ If we are then to accept such criteria, we must regard them as inductive rather than deductive. That is, they would constitute strong inductive evidence, rather than deductive assurance, that the individual satisfying them also fulfills the conditions for recognition as a person. However, this would still leave our fundamental question, viz., 'What are the essential (identifying) characteristics of a person?', unanswered.

At this juncture, we might adopt a somewhat different approach. Now, as was observed earlier, the fact that one is a person is quite irrelevant to much of what he does. With respect to such behaviour, he does not perform as a person. Even on such occasions, however, we would continue to recognize him as a person. Despite the fact that an individual fails to perform as a person with respect to any

particular piece of his behaviour, if he were initially identified as a person, he would continue to be so regarded. Yet, if there had been no piece of behaviour with respect to which an individual performed as a person, there would be absolutely no grounds for such recognition. Since there would be no occasion upon which one could properly describe such a being in terms reserved for the description of persons, to do so at any time would be, strictly speaking, quite inappropriate.⁴⁶ Unless there were some occasion on which it might be assumed that what an individual did could not have happened had he not been a person, one would have no reason for regarding him as a person on any occasion. Whatever other qualities he might exhibit, should there be any reason to assume that he had failed to satisfy this one, i.e., to assume that he performed as a person with respect to no piece of behaviour, he could not be identified as a person in the primary sense of this notion. For this reason, the ingenious machine mentioned above would not be recognized as a person. It would, by hypothesis, manifest all the qualities and behaviour of a man. Nevertheless, we would refuse to admit that it could perform as a person with respect to anything that it might do. And this would be sufficient to warrant our denying that it was a person. Those suffering from severe mental and/or physical disability, in coma, etc., who perform as persons with respect to none of their

behaviour would, in contrast, continue to be recognized as persons. Because it is reasonable to assume that there was, at some time, behaviour with respect to which these unfortunates performed as persons, we continue to regard them as persons in the primary sense after they are no longer capable of such performances. While few would deny that, if one performs as a person with respect to some pieces of his behaviour, he might be properly identified as a person, we might, on the basis of the foregoing discussion, also accept the converse, viz., that if one is correctly identified as a person, then he performs as a person with respect to some piece of behaviour. It might then be maintained that

[N] J is a person if, and only if, there is some piece of J's behaviour with respect to which J performs as a person.

It has long been observed that those having certain physical characteristics customarily perform as persons with respect to their behaviour, i.e., have beliefs and desires which issue in behaviour, and those who perform in this manner also manifest these qualities. On the basis of such experience, we then assume that anything manifesting such properties performs as a person with respect to some of his behaviour and hence, that he is a person. An individual's physical appearance would then provide the inductive grounds upon which we decide whether he is truly described by [N] and thus, merits recognition as a person.

actions are the direct consequences - the manifestations - of these decisions. Being a person might then be seen as having the capacity or the disposition to choose one's behaviour on the basis of what one believes and desires. If one did not manifest this capacity on some occasion, we would have grounds for attributing him with neither the capability of choosing, nor with the beliefs and desires required to make such choices. We would then have no reason to recognize such a being as a person. [N] might now be seen as describing the relation of a particular dispositional characteristic, i.e., that of choosing to behave on the basis of beliefs and desires, to its manifestations.

But are the antecedent conditions of [L] sufficient to elicit such a response, i.e., a decision, and thereby result in one's behaving in accord with these principles? Now, while our decisions may vary in their strength⁵⁰ and be frustrated in a myriad ways, unless one's decisions have some influence upon his behaviour, he could not be said to have truly made a decision. But what of these decisions? Philosophers have long sought such 'acts of will' and pondered how they might bring about actions. And their efforts have invariably resulted in frustration. Such an event, we are told, is "the internal impression we feel and are conscious of"⁵¹ when we behave intentionally;

should be good reason to believe that an individual could not have performed as a person with respect to any of his behaviour - as in the case of the machine mentioned earlier - despite his physical appearance, we would still refuse to acknowledge him as a person. In the light of such evidence, physical characteristics would no longer be accepted as sufficient for the identification of persons. In that case, however, nothing that was done would be regarded as an action. But, if there should be no evidence to indicate that the entity in question could not have performed as a person with respect to some piece of his behaviour, his physical appearance would continue to be sufficient to justify our recognizing him as a person which, if we then had no reason to deny that his beliefs and desires could not have issued in his behaviour on a particular occasion, would also be sufficient to justify our regarding what he did on that occasion as an action.

Our situation might then be summarized as follows: Certain entities possess an indefinite set of physical characteristics which, in the absence of defeating conditions, is accepted as sufficient to establish that they perform as persons with respect to some of their behaviour. On this basis, it is then assumed that they satisfy [N] and may therefore be recognized as persons. Where an individual has been identified as a person by

this criterion, unless we then have reason to believe that he could not have behaved as a person with respect to a particular piece of his behaviour, i.e., that what he did on that occasion could not have resulted from his beliefs and desires, we would then recognize his behaviour on that occasion as an action. When we identify persons, we then identify actions as well. Issues arising in connection with action-identification are then an integral part of the problem of personal identity.

Yet it still seems possible that one be a person, although he never performs as a person with respect to any piece of his behaviour, i.e., nothing he does results from his beliefs and desires.⁴⁷ [N] could not then provide us with a description of the logical requirements governing persons, i.e., an analysis of that notion. But if we are ever to identify an individual as a person in the full-blooded sense, this would only be possible through the mediation of [N]. For, only insofar as we have reason to believe that one performs as a person on some occasion, do we have reason to recognize him as a person. Where we lack the former, we also lack the latter. And, while it continues to be logically possible that there are persons which we have no reason to identify as such, i.e., all of whose behaviour would have occurred regardless of the fact that they are persons, we could never know of their existence. Describing such individuals in terms reserved

decision to act,⁵⁴ his decision must result in some sort of behaviour, and it must be of the kind described by the principle's consequent. But could one not refrain from making such a decision even though he had satisfied all the antecedent conditions? Once again, we encounter the problem of akrasia. And, as we have seen, this question itself remains quite unclear. In response, one might ask what else one could possibly require to make such a choice. If an individual did not arrive at a decision on this basis, under what conditions would he ever do so? Such a failure, it seems, must result from either (a) the agent's refusal to choose, or from (b) his inability to do so. The former would, of course, oblige us to admit that decisions are themselves objects of decision which raises the spectre of vicious regress. Moreover, this possibility, along with its problems, is precluded by the conception of decision which we have adopted. If the agent's failure to decide then results from his inability to do so, this, it seems, could only result from (i) his failure to satisfy the conditions required to initiate the decision-mechanism, i.e., the antecedent conditions of [L], or (ii) a failure on the part of the mechanism itself. If such a failure resulted from a failure of the agent's decision-mechanism, i.e., his capacity to decide, he would no longer be capable of decision and hence, we could not expect him to satisfy [L].

characteristics which permit them, and them alone, to function in this manner. And, since one's performance as a person is essential for his identification as a person, those features which enable such performances must then be the fundamental characteristics of persons. Through an investigation of the notion of performing-as-a-person, we might then elucidate the essential nature of persons. To this end, let us consider what is required in order that one perform as a person. Our earlier discussion provides a ready answer, that is, in order that one perform as a person, he must fulfill all the conditions prescribed by the antecedent of [L], and perform the behaviour described by its consequent. He must, in short, satisfy [L]. Such law-sketches describe how reasons result in actions; their domain of application must therefore be persons. And, when they truly describe one's behaviour, he performs as a person with respect to that behaviour. In virtue of his response on such occasions, his reasons, i.e., his beliefs and desires, bring about his behaviour. Now, we might ask what sort of response would it be that persons, and only persons, are assumed to manifest on such occasions so that they might satisfy these particular principles rather than some others. Such generalizations, it might be assumed, are rendered meaningful by the nature of that which they govern. Through examination of these law-sketches, we might then

clarify our conception of persons. And, in this way, we might establish how we commonly conceive of persons in order that they satisfy these principles.

To review our earlier discussion, it will be recalled that the first three conditions, viz.: (1), (2), and (3), of the set [T] might be said to represent the reasons for which one acts. Although it is customary to state only one of these conditions when explaining what was done, any one of these conditions might serve in this capacity, i.e., might be offered as the reason for the action. And, in order that any one of these three be recognized as the reason for an action, those which are not explicitly stated must be tacitly assumed. It is because a person has reasons, i.e., satisfies conditions (1), (2), and (3), that he performs an action. But this alone is still insufficient to bring about his action. For, as was observed earlier, unless the remainder of this set, viz., conditions (4) through (7), is also satisfied, we would still not admit that any of its initial members, (1), (2), and (3), could have resulted in his behaviour and hence, that they are the reasons which explain it. These three conditions would result in J's behaving in the manner described by (B), but only if he satisfied (4) through (7) as well. Only if the latter are satisfied is an agent thought to respond to the former, i.e., to his beliefs and desires, in such a way as to produce the requisite

behaviour. Only then would he perform as a person with respect to his behaviour.

Now, what must this response be in order that these conditions be necessary for its occurrence? Reflection would seem to provide but one plausible answer: In order that a person's reasons, his beliefs and desires, bring about his action, these subsidiary conditions must be satisfied because only in that case could the agent decide or choose to behave as he did on the basis of his reasons. Only if we assume that the agent's response of such occasions is a choice or decision to behave in the appropriate manner could we explain the necessity of including conditions (4) through (7) among [L]'s initial conditions. In such circumstances, a person must then be seen as choosing or deciding upon a mode of behaviour. His action would be a direct result of this decision. It is then through the mediation of a person's decision that his beliefs and desires are able to bring about his actions. We might therefore say that one performs as a person with respect to his behaviour if, on the basis of his beliefs and desires, he decides to behave in a particular manner and if his decision results in his performance of that particular piece of behaviour. And it is this decision which is required in order that reasons issue in action.

The point being made here is by no means a new one. Indeed, it was Aristotle who observed that

the origin of action...is choice, and that of choice is desire and reasoning with a view to an end.

And this is essentially the position which we have adopted. However, our analysis would seem to lend new force to the old insight, and it might well be the source of others. Where one's behaviour is recognized as an action, the agent's beliefs and desires are thought to bring about his behaviour through the mediation of his decision to behave in this manner. That is, on the basis of his beliefs and desires, the agent comes to such a decision which then gives rise to the appropriate behaviour. By making such a choice, one performs as a person with respect to his behaviour. And it is this response, viz., deciding upon a particular mode of behaviour on the basis of one's beliefs and desires, which is peculiar to persons. It is in virtue of their responding, or being capable of responding, in this manner that they are governed by the law-sketches represented by [L]. And only insofar as they respond in this way do they conform to these principles. In that case, however, persons as they are commonly conceived must be regarded as fundamentally decision-makers. It is this which lies at the core of the concept. Beliefs and desires are the tools of decision making. As a person, one is constantly obliged to decide upon what he will do with the aid of his beliefs and desires. His

actions are the direct consequences - the manifestations - of these decisions. Being a person might then be seen as having the capacity or the disposition to choose one's behaviour on the basis of what one believes and desires. If one did not manifest this capacity on some occasion, we would have grounds for attributing him with neither the capability of choosing, nor with the beliefs and desires required to make such choices. We would then have no reason to recognize such a being as a person. [N] might now be seen as describing the relation of a particular dispositional characteristic, i.e., that of choosing to behave on the basis of beliefs and desires, to its manifestations.

But are the antecedent conditions of [L] sufficient to elicit such a response, i.e., a decision, and thereby result in one's behaving in accord with these principles? Now, while our decisions may vary in their strength⁵⁰ and be frustrated in a myriad ways, unless one's decisions have some influence upon his behaviour, he could not be said to have truly made a decision. But what of these decisions? Philosophers have long sought such 'acts of will' and pondered how they might bring about actions. And their efforts have invariably resulted in frustration. Such an event, we are told, is "the internal impression we feel and are conscious of"⁵¹ when we behave intentionally;

as my thinking and wishing are unexecutive, they require the mediation of a further executive mental process. So. I perform a volition which somehow puts my muscles into action.⁵²

And it is in this way that decisions have been traditionally conceived. Implicit in this account is the assumption that decisions, like actions, are things which people do, i.e., people are thought to make or perform decisions in much the same way as they perform actions and, as with their actions, they are thought to be capable of making a decision or refraining from doing so. To represent matters in this way, however, only succeeds in compounding our problems. For, in that case, one's decisions must be regarded as voluntary in much the same way as his actions and, as such, they would be objects of choice. But, rather than explain how beliefs and desires promote actions, this conception of decision would then lead us into a vicious regress. If we are to avoid such an impasse, we must seek an alternative. In contrast to the conventional analysis, I then propose that an agent's decision or choice is not itself an object of volition. While it is a mental event of which we may, or may not, be aware, it is not the sort of thing that one could be said to do or perform.⁵³ Such phenomena are endured or suffered in much the same way as is mere behaviour. On this account, decisions are seen as nothing more than the connective process, the mechanism by means of which

reasons promote actions. Should one satisfy the requisite conditions, i.e., the antecedent conditions of [L], the dispositional trait in virtue of which he is characterized as a person is activated, and it ultimately issues in the appropriate action. And this process is not itself subject to a further decision.

But would one's deciding to behave in a particular manner necessitate his performing that action, or would it merely make it more likely that he do this than something else? With this question, we resurrect the old dispute as to whether the law-sketches which we have considered are deterministic or probabilistic. Yet, as we saw earlier; in this context such a question is quite inappropriate and might, therefore, be disregarded.

Now if, having satisfied all the conditions of [T], J were then to do something other than what was described by (B), his behaviour, on this occasion, could not have resulted from his reasons as mediated by his decision. Where all the conditions of [T] have been satisfied, only the event described by (B), could stand in this relation to J's beliefs and desires as they are described by those conditions. Only it could then be an action. Should J do something else, his behaviour, on this occasion, could not be an action. If one's satisfying all the antecedent conditions of such a law-sketch should initiate his

decision to act,⁵⁴ his decision must result in some sort of behaviour, and it must be of the kind described by the principle's consequent. But could one not refrain from making such a decision even though he had satisfied all the antecedent conditions? Once again, we encounter the problem of akrasia. And, as we have seen, this question itself remains quite unclear. In response, one might ask what else one could possibly require to make such a choice. If an individual did not arrive at a decision on this basis, under what conditions would he ever do so? Such a failure, it seems, must result from either (a) the agent's refusal to choose, or from (b) his inability to do so. The former would, of course, oblige us to admit that decisions are themselves objects of decision which raises the spectre of vicious regress. Moreover, this possibility, along with its problems, is precluded by the conception of decision which we have adopted. If the agent's failure to decide then results from his inability to do so, this, it seems, could only result from (i) his failure to satisfy the conditions required to initiate the decision-mechanism, i.e., the antecedent conditions of [L], or (ii) a failure on the part of the mechanism itself. If such a failure resulted from a failure of the agent's decision-mechanism, i.e., his capacity to decide, he would no longer be capable of decision and hence, we could not expect him to satisfy [L].

Should one fail to decide and act upon that decision when he was known to have satisfied all these requirements, his failure would then raise doubts with respect to his capability of making decisions and hence, his status as a person. Identifying something as a person would then amount to recognizing it as the sort of thing which, when truly described by the antecedent conditions of [L], makes a decision which results in an event as described by that principle's consequent. A person might then be said to be that sort of thing which is disposed to behave in conformity with these law-sketches. And one performs as a person when he actually behaves in this manner.

With this in hand, we might now complete our general analysis of action-identification. For the reasons mentioned earlier, we assume that individuals, manifesting certain physical characteristics are disposed to make decisions with respect to their behaviour as a result of their beliefs and desires, and that at least some of their behaviour results from such decisions. Only when we have contravening evidence do we abandon this presumption. And, when one is identified on this basis, only if we have good reason to believe that he could not have reached the requisite decision on a particular occasion, i.e., where we know that he did not satisfy one of the conditions which govern such decisions, would we deny that it was such

a decision which brought about his behaviour. Where there is no such evidence, however, we assume that a person's behaviour is brought about by his reasons as mediated by his decision and hence, that it is an action. We may, of course, learn from various sources that, on a particular occasion, a person could not have made the decision which would have been required to bring about his behaviour,⁵⁵ or that even if he had made the required decision, it could not have brought about his behaviour.⁵⁶ Should we obtain such information, we would be obliged to deny that what the agent did on this occasion resulted from his decision to act for a reason, that he performed as a person with respect to it and hence, that it was an action. But where we have no such information, a person's behaviour is always regarded as an action. And, in order that this be the case, it must be assumed that the event came about in the manner described by [L].

If the foregoing account is correct, one might recognize an event as an action, although he has no conception of what particular action it might be, or why it was performed. While realizing that what was done resulted from a person's decision to act for a reason, one might have no idea of what reason the decision was based upon and hence, of what the person had decided to do. But, in order that a person decide upon his behaviour, he must satisfy all the antecedent conditions of [E]. If

one is then to recognize that a particular event resulted from a person's decision, he must assume that its occurrence was governed by this principle. And one might well make this assumption with respect to an event while remaining quite ignorant of the particular conditions which brought it about. In this way, he might identify an event as an action rather than some other kind of phenomenon, but fail to recognize it as an action of a particular kind. Indeed, where that which manifests the behaviour has been identified as a person, our initial, and most reasonable, response is to assume that what happened was brought about by a decision and hence, was an action. Under such circumstances, it is withholding such recognition which requires additional criteria, i.e., evidence that the event could not have resulted from a decision. Having made such an identification, one might then proceed to determine the particular conditions which gave rise to the phenomenon. Such an enquiry would establish either (a) precisely which action had been performed, or (b) that what had transpired was not, in fact, an action as had been initially assumed. And with this, we obtain the initial criterion of action-identification, i.e., a complete answer to $[I_1]$.

But this still leaves us to account for the second criterion of action-identification, i.e., to provide an answer to $[I_2]$. Having shown how actions are distinguished

from other kinds of phenomena, we must now demonstrate how we distinguish among actions, i.e., how we recognize an action as being of one particular kind rather than another. To accomplish this, we might recall that reasons have been represented as being of two kinds, beliefs and wants, both of which are required to produce an action. Should one identify an action in the manner described above while being quite ignorant of the particular reasons, i.e., beliefs and desires, which prompted it, he would have no way of recognizing what specific action had been performed. But human behaviour is rarely so inscrutable. There is usually, in the context of their occurrence or in the behaviour itself, something which would suggest what beliefs and/or desires motivated it. And it is on this basis that we are accustomed to identify such phenomena. Thus, J's performance of certain gestures, if observed in a restaurant, might be assumed to be motivated by his desire to attract the waiter's attention. On this assumption, we might identify the event as 'J's calling the waiter' or as 'J's trying to call the waiter', according as to whether he succeeds or fails in his endeavour. To obtain an explanation of this occurrence, one might then ask why J called (or tried to call) the waiter. If he were then told that J believed that he had been overcharged, he might accept this as an adequate explanation of what J had done. In the light of the

condition by means of which he identified the event, this would be recognized as the reason for J's behaviour. But in order that such an explanation succeed, one would be obliged to assume that J had satisfied all the other prerequisites of action, i.e., the remaining conditions of [T] appropriately formulated. Yet, another who was more auspiciously situated might realize that J's behaviour had, in fact, been motivated by his belief that a friend had entered the room. He might then greet the preceding inquiry by denying the characterization which it involves. And on the basis of his observation, he would describe what transpired as 'J's waving to a friend'. When described in this way, its explanation would require a description of what J wanted to achieve by his performance, that is, whether he intended his gesture as a sign of greeting, to call his friend over, etc. Insofar as J's behaviour is an intentional action, which of these characterizations correctly represents it and hence, which of the proffered reasons succeeds in explaining it, would depend upon what J actually believed and wanted on this occasion, and which of these resulted in his deciding to behave as he did. Should J have intended to salute his friend and, in so doing, inadvertently attracted the waiter, we might characterize his performance as a 'calling the waiter'. When thus characterized, however, J's behaviour would be unintentional and, as such, unexplainable in terms of his reasons.

According to our analysis, knowledge of either the particular beliefs, or the particular desire which brought about the action would enable us to identify it as an action of a particular kind. Should one know only one of these factors, however - that is, either the belief or the desire but not both - while one would be able to identify the action as an action of a specific kind, he would still be left wondering why the agent had chosen to perform it rather than something else. And it is in precisely such circumstances that we typically demand and offer explanations for behaviour, i.e., the reason for what was done. If one knew both the particular beliefs and desire upon which the agent's decision was based, he would know both what the agent had decided to do and why he had made that decision; he would have answers to both (A) and (E). No further explanation would be available or required. If, on the other hand, one knew neither the beliefs nor the desire which governed an agent's decision, he would be unable to determine what particular action had been performed. A request for identification rather than explanation would then be appropriate. (E) rather than (A) would be the suitable question to ask. For one would then have no way of determining which action had been performed and hence, would be in no position to ask why it had taken place. But, where one of these conditions is known, and not the other, the

sive set. And we would seem to be confronted with just this sort of transition in social science. Should this occur, however, the social sciences could no longer be said to investigate human actions as they are presently recognized. Or, if the present system of principles to which both social science and common-sense appeal should be reduced to those of one of the natural sciences, e.g., physics or neurology, - an eventuality which seems eminently possible - the distinction between social and natural science could no longer be drawn. As a result of such a reduction, the social sciences would become little more than areas of special interest within a more general natural science. And this, in effect, is what traditional regulists claim to be the case. But, while it seems evident that such a reduction has not yet transpired, there would appear to be absolutely no reason to deny the possibility. Indeed, recent developments in both the social and the natural sciences suggest that such a revision is imminent. Should it occur, the distinction between social and natural science would be erased, or more properly, social science as a distinct area of inquiry would be eliminated.

Yet, as was observed early in our discussion, underlying the regulist/anti-regulist controversy concerning the model of explanation in social science are fundamentally divergent conceptions of (scientific) explanation and

action might be identified as being of a particular kind. That is, if one only knows what belief resulted in an agent's decision to behave as he did, or only what desire prompted this decision, he could, on this basis, establish what the agent did. And it is such knowledge which provides us with the second criterion of action-identification, i.e., an answer to [I₂]. But one who has such knowledge would still not know why it had occurred, that is, he would not understand the phenomenon. Only knowledge of both the beliefs and desire which resulted in the agent's decision could provide this. And, while we may regard an agent's beliefs and desires as bizarre and the actions in which they result as ill-advised, i.e., as irrational, knowing that he actually subscribed to such beliefs and desires would, nevertheless, enable us to understand what he did. We may thus explain an action even though it is considered to be quite irrational. In this way, we might preserve the intuitive distinctions between the identification, the explanation, and the evaluation of an action.

Within such a programme, offering a reason in explanation of an action would amount to describing the specific state, viz., either the belief or desire, which resulted in the agent's performing the action and knowledge of which, in conjunction with the information by means of which the inquirer identified the action, would provide

an understanding of why it occurred. But, in order that an explanation of this sort succeed, the event must already have been identified as an action of a particular kind. And for this to be the case, the inquirer must know (or assume) the other psychological states, viz., belief or desire, which prompted its occurrence and realize that, because of his experiencing these states the agent decided to behave in this manner. (Yet, if beliefs and desires, i.e., [L]'s antecedent conditions as described by (1) through (3), are to bring about a decision and thence, an action, conditions (4) through (7) must also be satisfied. Unless these latter conditions are also assumed, no description of an agent's beliefs or desires, i.e., statement of form (1), (2), or (3), could succeed in either identifying or explaining what he did. Indeed, the event could not be regarded as an action at all, since it could not have resulted from the agent's decision. These conditions, viz., (4) through (7), would therefore be the pre-conditions for both action-identification and action-explanation. Neither is possible unless these prerequisites are assumed to have been satisfied. And this would explain why statements which take the form of these conditions, viz., (4) through (7), are never offered as reasons either in identification or explanation of actions. Rather than describing that which the agent took into account in order to reach his

decision on the basis of such considerations, the mechanism of decision-making. An individual's capacity to satisfy these conditions would then be part of what is required for his recognition as a person.

• However, it might now be objected that our account is vitiated by circularity. For, to identify an event as an action, we are required to identify the agent as a person. This, in turn, calls for our recognizing him as a decision-maker which requires that he be seen, or assumed, to perform as a person with respect to some piece of his behaviour. But performing as a person amounts to little more than performing an action, so that the circle is complete. And we are, of course, obliged to grant the point. Yet, it must be observed that the circularity involved is far from vicious. Evidence - or the assumption that there is such evidence - that something an agent did resulted from his decision establishes his status as a person which, in turn, warrants our recognizing a particular piece of his behaviour as an action. But behaviour so identified would not provide the grounds for its own identification. This would be obtained from other performances, or merely assumed on the basis of his physical appearance. The circularity would therefore be quite benign, leaving our account unimpaired. Moreover, if the expressions which we employ for such purposes are implicitly defined by the network of principles of a

common-sense linguistic framework in the manner described earlier, this is precisely what we would expect. For, if that were the case, these notions could only be understood in terms of others introduced by the same system. And this would appear to be precisely what occurs. The fact that we encounter such a circularity would then constitute some corroboration of these claims.

But there is still another attack which might be directed against our programme. For the notion of a person is central to our account and, according to our analysis, the essential feature of persons, i.e., that in virtue of which one is said to be a person, is the disposition to choose or decide upon his behaviour. Insofar as we have no reason to deny that individuals manifesting certain physical characteristics have this capacity, we assume that they are so disposed. And it is in virtue of this that we recognize them as persons. But to this one might object that neither infants nor congenital defectives could be reasonably assumed to share in this capability; they neither perform as persons with respect to any of their behaviour, nor could be reasonably assumed to do so. Nevertheless, we continue to regard such individuals as persons and their behaviour as actions. Since such beings could not be regarded as decision-makers, they must, by the foregoing analysis, be denied recognition as persons. And this, it seems, would expose our analysis of both

persons and actions as defective. Such cases might then be offered as counter-examples which scuttle the programme.

Yet, while we must, of course, accommodate such objections, it is by no means apparent that they succeed as refutations. For, although we most certainly recognize children and congenital defectives to be persons, our recognition would appear to be tempered by certain reservations. That is, while we regard them to be persons, we do so with qualification; we do not consider them to be persons in quite the same sense as those charged with the responsibility of ministering to their needs. But this casts an entirely new light on the situation. For, if we do, in fact, recognize such distinctions, as common usage suggests, the notion of being a person would then have to be recognized as equivocal. And, although it follows from our account that infants and congenital defectives are not persons in the sense which we have been discussing - which we might call the primary or full-blooded sense of person - they might, nevertheless, continue to be regarded as persons in some other sense.⁵⁷ In this way, we might accommodate our natural inclinations to recognize such beings as persons while still preserving the intuitive distinction between them and their full-blooded counterparts. Since it would no longer follow from our programme that such beings could not be identified as persons in some sense, the foregoing objection would be removed.

Rather than entities having some characteristics, or set of characteristics which is both necessary and sufficient for their identification, persons would seem to be best represented as sharing in an indefinite set of 'family resemblances'.⁵⁸ While certain features are more central to this notion than others, no single characteristic or set would be considered necessary for its correct application. Our account might then be taken as a sketch of (one of) the principal members of this family rather than a family portrait. We would freely grant the existence of others, and might do so without compromising our position. But the picture is complicated by the fact that this notion also involves strong emotional overtones. That is, even where a particular entity manifests no feature which would warrant its recognition as a person, one might still treat it as a person, and even regard it as such, in virtue of his feeling emotions with respect to it which are typically elicited by persons.⁵⁹ Because of this, it would seem, 'person' as it is commonly used must be acknowledged to be ambiguous.

III

My general thesis may be summarized as follows:

the social sciences including psychology, sociology, political science, history, and probably linguistics...share the same subject matter - the behaviour of men. And they employ without always admitting it, the same body of general explanatory principles.⁶⁰

Yet, it is not the mere behaviour of men which they investigate, for a study of such phenomena would fall within the purlieus of natural science. It is human behaviour, but only insofar as it is brought about by human intentions, i.e., the actions of persons, that constitute their ultimate objects of interest. And such phenomena, I have argued, are identified and explained with the aid of certain nomological principles, i.e., the set of law-sketches represented by [L], which govern persons and their behaviour. Such principles must be tacitly assumed by all action-explanations and hence, by all the explanations of social science. It is therefore principles of this sort which underlie the social sciences. Like explanations in terms of reasons,⁶¹ those provided by social science might be best construed as explanation-sketches, enthymemes, which only reveal their logical structure to a reconstructive analysis of the sort, conducted here. By such an analysis, they too might be shown to take the familiar form of the covering-law model. In

this respect, they are like any of the natural sciences. The model of (scientific) explanation and the form of the laws which occur in these explanations is, therefore the same for both the social and the natural sciences. Only insofar as these diverse areas of inquiry investigate and explain different kinds of phenomena, viz., human actions as distinct from natural events, that is, insofar as the laws which they employ in their explanations govern different kinds of objects and events, are we able to differentiate between them. Anthropology differs from physics in much the same way as does chemistry.

In this way, we might vindicate the regulistic account of explanation in social science. Yet, recalling our discussion of theoretical reduction, there would seem to be no reason why the grounds upon which we presently distinguish between social and natural science should endure. For,

there is no reason why the two theoretical vocabularies built from two sets of theoretical primitives could not be replaced by one vocabulary built from one set of primitives... the primitive vocabulary of the reduced... theory would reappear, this time, however, not as primitive, but as defined terms in the reducing theory.⁶²

If we should then obtain a more adequate set of laws and the required correspondence rules, the law-sketches which presently underlie both social science and common discourse might well be reduced to this more comprehen-

sive set. And we would seem to be confronted with just this sort of transition in social science. Should this occur, however, the social sciences could no longer be said to investigate human actions as they are presently recognized. Or, if the present system of principles to which both social science and common-sense appeal should be reduced to those of one of the natural sciences, e.g., physics or neurology, - an eventuality which seems eminently possible - the distinction between social and natural science could no longer be drawn. As a result of such a reduction, the social sciences would become little more than areas of special interest within a more general natural science. And this, in effect, is what traditional regulists claim to be the case. But, while it seems evident that such a reduction has not yet transpired, there would appear to be absolutely no reason to deny the possibility. Indeed, recent developments in both the social and the natural sciences suggest that such a revision is imminent. Should it occur, the distinction between social and natural science would be erased, or more properly, social science as a distinct area of inquiry would be eliminated.

Yet, as was observed early in our discussion, underlying the regulist/anti-regulist controversy concerning the model of explanation in social science are fundamentally divergent conceptions of (scientific) explanation and

ultimately, of science itself. That is, those who subscribe to these competing positions are committed to different theories of (scientific) explanation and this, in turn, commits them to quite disparate views of science as a whole. At this point, we might then briefly consider the conception, i.e., theory, of (scientific) explanation which underlies the position propounded here. Now, according to our analysis, explanation throughout the sciences is of the covering-law model. Whether they occur in the social sciences or in the natural sciences, explanations, as we represent them, will satisfy both the covering-law condition and the deductive condition. But, since natural laws would be an essential part of all such explanations, if we are to explain why (scientific) explanation is of this form, we must begin with a general account of empirical law and how it contributes to the explanation of phenomena.

The initial task of such an undertaking is to distinguish generalizations accepted as nomological from those which are regarded as merely accidental. Now, the direct evidence supporting an accidental generalization may be as good as, or even better than, that which confirms many of our laws. This distinction could not therefore rest with their observational confirmation; "the difference between our two types of generalization lies not... on the side of the facts which makes them true or false".⁶³

This might be explained by the fact that the characteristic function of laws is explanation. But,

if the reason for believing the general proposition is solely direct knowledge of the truth of the instances, it will be felt to be a poor sort of explanation. If, however, there is evidence for it which is independent of its instances, such as the indirect evidence provided by instances of a same-level proposition..., then the general proposition will explain its instances in the sense that it will provide grounds for believing in their truth independently of any direct knowledge of such truth.⁶⁴

Over and above their direct confirmation, nomic generalization might then be said to enjoy the indirect support of other assertions of similar status. And this would seem to reflect what actually transpires in such matters. For, when we recognize a particular assertion as nomological, we do so in virtue of support which it receives from other assertions which have been accorded similar recognition. Laws tend to occur in sets, whereas accidental generalizations are generally confirmed and accepted singly, solely on the basis of direct, observational evidence. There is, in addition, a certain sense of "'necessity' associated with universal law"⁶⁵ which we do not attribute to accidental generalizations: laws might also be distinguished from accidental generalizations in virtue of the fact that they sustain subjunctive and counter-factual conditionals whereas accidental generalizations do not. And these characteristics are the ones upon which the distinction has usually been drawn.

But, while on this basis lawful assertions are differentiated from those which are merely accidental, such differences must themselves be explained. For one might well wonder why there should be such differences. And an explanation of these differences might well provide us with the general account of natural law and its role in explanation which we seek. Now, it has been observed that

it is not...a peculiarity of statements which one takes as expressing laws of nature that they entail subjunctive conditionals, for the same will be true of any statement which contains a dispositional predicate.⁶⁶

That is, lawful assertions share with assertions describing dispositional properties the characteristic of supporting counter-factual and subjunctive conditionals. But this might well suggest how the diverse features of such statements could be explained. For, it would lend some credence to the claim that nomological generalizations are, in fact, descriptions of dispositional characteristics of the entities which they govern. Such properties, however, would be manifested in different ways under different conditions, so that their description would have to accommodate such differences. If construed in this way, laws might then be expected to occur in mutually supporting sets rather than as independent units. And, if we were then to assume that those features of an entity described by the laws governing it are the essential

characteristics, i.e., those in virtue of which it is properly identified as an object of that type, of such things, we might then explain the necessity associated with such assertions. For, in that case, if a particular entity were properly identified as being of a certain type, then it would, of logical necessity, have the dispositional features described by the laws governing such entities. It would then be obliged to manifest them in accord with these descriptions. A complete set of the laws governing any particular kind of entity would then give an exhaustive description of the various ways in which all the essential properties of such things are manifested. Accidental generalizations, in contrast, may be said to describe purely contingent correlations. From this vantage point, we are able to account for all the facts and distinctions which such issues introduce. And, while this account of natural law may require extensive refinement, the foregoing considerations would attest to its fundamental soundness. It is therefore this position that I shall adopt.

On this analysis, insofar as the "aim of science is the establishment of laws",⁶⁷ its objective is fundamentally ontological, that is, to determine the nature of objects, to discover what they are by discovering their essential properties. And the laws which it provides are nothing more than descriptions of what it is

to be an entity of that particular type. In order to identify things of a certain kind, one must know (at least) some of its distinguishing features and perceive that certain individuals manifest these qualities. Such knowledge, however, would amount to knowing (some of) the laws which govern things of that kind. Thus, while copper might occur in a diversity of forms, if a particular object responded to certain specific conditions, e.g., electrical impulse, heat, chemical analysis, etc., in the manner described by the laws which govern that element, regardless of its other features, shape, size, colour, etc., we would consider this as sufficient to establish that it had the essential features which warrants its identification as copper. And were one to know all the laws which govern a particular kind of entity, he would know all the essential properties of such objects. Knowing what thing is may then be expressed as nothing more than knowing the general, nomological principles which govern its behaviour, i.e., as knowledge of the dispositional characteristics which will result in its responding to certain conditions in a particular manner. And there is a common sense of 'understanding', viz., the one which occurs in sentences like 'A mother understands her son' or 'The mechanic understands engines', which applies to individuals rather than events and which concerns precisely this kind of knowledge. To understand

an object, in this sense, is to know how it would behave under various conditions, i.e., to know that in virtue of its having certain dispositional characteristics it would respond to certain conditions in certain ways. And such knowledge would be obtained through knowledge of the laws governing entities of that kind. Insofar as science seeks laws it therefore endeavours to provide us with this sort of understanding of the objects which those laws govern.

According to the programme outlined above, when one identifies an object as being of a certain type, e.g., as a person or a molecule, he tacitly recognizes it as having the dispositional characteristics described by the laws governing entities of that kind. But, if a certain kind of thing is identified in virtue of a particular characteristic (or set of characteristics) as described by a certain law (or set of laws), and if an individual were recognized as being of that kind, then it would have to manifest that quality in the appropriate manner. If it were known that all the conditions required to activate that disposition, i.e., those conditions which, if satisfied by an individual of that kind, would result in its behaving in a particular way, had been satisfied, that individual would have to behave in accord with this disposition. Should it fail to do so, we would be obliged to deny that it had that particular dispositional trait and hence, that it was an object of that kind. When one

provides a (scientific) explanation, he might then be said to (a) describe the particular dispositional characteristic displayed by entities of the type which manifested the behaviour in question, and (b) assert that the conditions required to activate this disposition had been satisfied. By stating the law involved in such explanations, we accomplish the former; by stating the initial conditions, the latter. But this would also explain why it is frequently unnecessary to state the laws which govern a particular explanation explicitly. For, when it is known that the one requesting that a particular event be explained is aware of the type of entity involved in the occurrence, it might be assumed that he is acquainted with the features by means of which such entities are identified, i.e., the laws which govern such entities, and, with knowledge of the specific conditions encountered by this object as described by the statements of initial condition, that he will be able to determine which of these dispositional traits, as described by the laws governing such entities, is relevant to the occurrence. Under such circumstances, a singular statement, or statements, would be sufficient to provide the interrogator with all the information required for the (scientific) understanding of what transpired. It is unnecessary to offer more. With this, he himself might reconstruct the complete explanation, if called upon to do so.

But this introduces another sense of 'understanding', namely, that which designates the state of comprehension typically obtained through the explanation of phenomena. This sense of the expression, in contrast to the one mentioned above, applies to events. And it is through their explanation that we obtain such an understanding of them. In this sense, it is generally believed that "understanding...is the aim of science".⁶⁸ That is, many have argued that science endeavours to satisfy man's "desire to gain...ever deeper understanding of the world in which he finds himself"⁶⁹ and does so through the provision of (scientific) explanations. And, with the aid of the foregoing analysis, we might now determine "what kind of understanding its explanations can give us".⁷⁰

For, when one knows an event's explanation, he might be said to know the relevant features of the kind of entity involved in that occurrence which, when such objects are placed in certain circumstances, would result in their behaving in this manner, and that these individuals were, in fact, placed in such circumstances. (Scientific) explanation might then be said to provide an understanding of phenomena insofar as it enables us to see the event as resulting from the essential nature of the entities involved and the circumstances in which these entities were placed. Understanding of this sort would then consist in knowledge that any object of the same kind would - indeed, must - behave in the same way, if exposed

to the same conditions. And the provision of such knowledge is the primary objective of explanation and ultimately, of science. It is then this general conception of (scientific) explanation which subtends my account of explanation in the social sciences.

The position propounded in this essay would accommodate all the relevant data while avoiding difficulties encountered by alternatives. It does, in addition, enjoy the benefits of greater simplicity. By the conventional standards of theoretical preference, it would then merit acceptance over its rivals. According to my analysis, the explanation of action and hence, explanation in the social sciences, has the same logical structure as explanation in natural science, namely, the form represented by the covering-law model of explanation. My account is therefore regulistic. Yet, it differs profoundly from the regulism espoused by many of my predecessors. For the reasons which we have discussed, however, the actual structure of such explanations can only be discovered by a reconstructive analysis of the sort performed here. Like other phenomena, actions are events in the world. In virtue of this, one would expect them to be explained in a way which was similar to that employed in the explanation of other facts. But they also differ from other occurrences in certain very significant respects. And an adequate analysis must be able to

account for the similarities as well as the differences. Regulists have generally emphasized the former to the exclusion of the latter, while anti-regulists err in the opposite direction. Through a critical analysis of both these alternatives, I have endeavoured to construct a position which accommodates the insights of each while avoiding the errors of both.

FOOTNOTES

- 1 Hempel, Carl G., "The Function of General Laws in History", pg. 238.
- 2 Davidson, Donald, "Actions, Reasons, and Causes", in The Nature of Human Action, edited by Myles Brand, pg. 76.
- 3 And, if one were to deny the possibility of such pre-scientific explanations, consistency would oblige him to deny that any but the ultimate laws of science could provide us with explanations, which amounts to denying that we presently have any explanations whatsoever.
- 4 "Natural science...empirically investigates the subject matter of such axioms." (Cf. Morris R. Cohen and Ernest Nagel, An Introduction to Logic and Scientific Method, pg. 132)
- 5 Brown, Robert, Explanation in Social Science, pg. 149.
- 6 Hempel, Carl G., "Aspects of Scientific Explanation", pg. 371.
- 7 Dispositional predicates might be treated as 'theoretical constructs'. But, in many cases, they are employed where there is, as yet, no adequate theory. The explanation of morphine's tendency to cause sleep because of its soporific property is a case in point. And Molière made fine sport of that explanation (cf. his The Physician in Spite of Himself). But, while such explanations are patently inadequate, to dismiss them quite so lightly, as I believe, overly harsh. When used in this way, they would seem to represent a signal of our ignorance and the need of a theory. As such, they may be accepted as 'promissory notes' which will be replaced by a more adequate analysis when such is available. In this capacity, they might be said to perform the important task of directing scientific research, the sign-posts to progress.
- 8 Hempel, "Aspects of Scientific Explanation", pg. 371.
- 9 Only if we assume the thesis of logically privileged access would it follow that we could never obtain independent evidence of a person's mental states. But, as

was observed earlier, this claim is itself suspect. Moreover, to appeal to it in this context would appear to beg the question at issue.

10 Donagan, Alan, "The Popper-Hempel Theory Reconsidered", in Philosophical Analysis and History, edited by William H. Dray, pg. 142.

11 Louch, A.R., Explanation and Human Action, pg. 9.

12 Our earlier contention that [T] was sufficient for the occurrence of and hence, for the explanation of the explanandum-event rests upon precisely this point, i.e., that where [T] is satisfied, conditions under which (B) might be falsified could not be produced. This would then substantiate our contention that the conditions described by [T] are both necessary and sufficient features of the agent's situation for the purpose of explaining his action.

13 D.C. Dennett offers a fascinating and insightful account of how such a reduction might be performed in his Content and Consciousness.

14 Putnam, Hilary, "The Analytic and The Synthetic", pg. 364.

15 Goldman, Alvin I., A Theory of Human Action, pg. 112.

16 Alston, William P., "Wants, Actions, and Causal Explanation", pg. 340-341.

17 Maxwell, Grover, "The Ontological Status of Theoretical Entities", pg. 22.

18 Aune, Bruce, Knowledge, Mind, and Nature, pg. 214.

19 This was originally suggested by Carnap's remark that "terms like 'temperature' in physics or 'anger' or 'belief' in psychology are introduced as theoretical constructs..." (cf. "On Belief-Sentences", pg. 230; also, "The Methodological Character of Theoretical Concepts"). Wilfrid Sellars has ably developed this observation in Science, Perception, and Reality; Philosophical Perspectives, and Science and Metaphysics. An excellent exposition of the position is offered by Richard Rorty in "Mind-Body Identity, Privacy, and Categories".

20 Aune, op. cit., pg. 214.

21 "Reduction; in the sense in which the word is here employed, is the explanation of a theory or a set of experimental laws established in one area of inquiry, by a theory usually though not invariably formulated for some other domain." (Cf. Ernest Nagel, The Structure of Science, pg. 338.)

22 As it was presented earlier and customarily construed, covering-law explanations can be exclusively and exhaustively classified as either D-N or I-S. If the foregoing argument is sound, however, we would be obliged to deny this.

23 The former may be necessary, i.e., if an action is rational then it must be intelligible; but it would not be sufficient for the latter.

24 Louch, op. cit., pg. 51.

25 Dray, William H., Laws and Explanation in History, pg. 24. This is particularly evident where there is some question as to the appropriateness of what was done. Thus, when coming home very late, a young girl would be expected to answer her father's irate demands for explanation with reasons which would justify her behaviour.

26 Ibid., pg. 123.

27 They are, what Alvin Goldman calls, 'standing' wants and beliefs. See, page 178ff.

28 A certain pattern of deliberation might be said to become 'wired in' the organism so that, under the appropriate circumstances, it may be triggered. The agent might undergo such processes subliminally. Taking such a view would permit us to recognize habitual behaviour as both deliberate and, if not necessarily rational, at least explainable. And this would coincide with common sense.

29 Dray, op. cit., pg. 123. And insofar as we deny its being purposive, we would not recognize it as an action. In "Explanation in Science and in History", (cf, pp. 120-121), Hempel criticizes Dray's treatment of this point, but nevertheless admits that the claim cannot be simply dismissed. I am here trying to clarify the insight.

30 The conception of practical reasoning adopted here is essentially the Aristotelian. See, The Nichomachean Ethics, Bk. VI.

31 Donagan, op. cit., pg. 148.

32 Mischel, Theodore, "Psychology and Explanations of Human Behaviour", in Readings in the Theory of Action, edited by Norman S. Care and Charles Landesman, pg. 222.

33 Alexander, Peter, "Rational Behaviour and Psychological Explanation", (in Care and Landesman), pg. 168.

34 Whether these are causes or consequences need not concern us here. See, footnote 4, Chap. IV.

35 Louch, op. cit., pg. 4.

36 We might continue to employ the original set of concepts even after such a reduction has taken place, just as chemists continued to use their original theories long after that discipline had been reduced to atomic physics. All that is necessary for such a reduction is that the reduced theory be shown to be derivable from the reducing theory with the assistance of the appropriate correspondence rules: It might be expected that, as knowledge of the reduction spreads, the reduced theory will be abandoned and its primitive terms, if they continue to be used, will be understood as defined on the basis of those introduced by the reducing theory. But this is a contingent matter and may not occur even though one theory has been successfully reduced to another. As Richard Rorty observes in "Mind-Body Identity, Privacy, and Categories", such a reduction encounters its greatest resistance where the 'theory' to be reduced is an 'observation language'. This might result in widespread refusal to adopt the reduction. But that is of little consequence. For, the mere fact that most people continue to conceptualize human behaviour in the manner of their forefathers would not establish that the framework which introduces such notions has not been reduced.

Most theorists would seem to be of the opinion that all theoretical change is theoretical reduction (cf. Carl Hempel, "The Theoretician's Dilemma"; Thomas S. Kuhn, The Structure of Scientific Revolution, et al.). In this, I believe them to be quite mistaken. For the reduction of one theory to another is a radical and relatively rare occurrence. But theories undergo another kind of transformation which, although less dramatic, is far more

pervasive. This results from our continual alteration and adjustment of peripheral principles which, individually have little or no effect upon the overall structure, but eventually result in extensive revision. And all theories would appear to be continually undergoing such an evolutionary change, as distinct from the revolutionary change of theoretical reduction.

37 Nagel, for example, identifies reduction with explanation. See, footnote 21 above.

38 Rorty, Richard, "Mind-Body Identity, Privacy, and Categories", pg. 194.

39 Feyerabend, P.K., "Explanation, Reduction, and Empiricism", pg. 59.

40 Although not of action-explanation, as presently construed. For there would no longer be such explanations, since the phenomena which they are meant to explain would no longer be recognized.

41 Cf. Bruce Aune, op. cit., pp. 218-223.

42 Taylor, Richard, "Thought and Purpose", in The Nature of Human Action, edited by Myles Brand, pg. 271.

43 A tradition which dates back to Descartes' second Meditation.

44 These would seem to take the form of 'family likenesses' of which Wittgenstein speaks (cf. Blue Book, 17, 87, 124), none of which are individually either necessary or sufficient.

45 Such possibilities are a perennial source of science fiction. See, Frank Hoyle's Black Cloud and Jack Williamson's The Humanoids.

46 We would have no way of establishing the truth-values of such descriptions. They would then be strictly meaningless. We may, nevertheless, continue to employ them in some extended or metaphorical sense.

47 That this is, in fact, a possibility is disputable. For, unless some of an agent's desires and beliefs result in action, it is by no means clear how he could be said to have such mental experiences. But, since "mental states and sensory states are basic categorial features of human persons" (cf. Aune, op. cit., pg. 232), and undergoing such states implies having beliefs and desires, it would also preclude his experiencing mental and sensory states and thus, his being a person. It would therefore be impossible that a person fail to perform as a person on some occasion. But here, the impossibility might well be nomic rather than logical. While [N] would then provide us with a lawful basis for identifying persons, it would not be a deductive criterion, i.e., it would provide us with no part of what is meant by 'being a person'. Such issues, however, continue to be highly controversial and shall not be pursued here.

48 Precisely this point underlies the various problems which have recently attracted so much attention concerning how we would ever succeed in identifying and communicating with extra-terrestrial, intelligent beings. It would also arise in connection with disembodied spirits.

49 Nichomachean Ethics, Bk. VI, ch. 2, 1139^a 32-33.

50 Such variations would seem to be directly proportional to the strength of the desires which govern them.

51 Hume, David, Treatise of Human Nature, Bk. II, Part 3, Sect. i, pg. 399.

52 Ryle, Gilbert, The Concept of Mind, pg. 63.

53 "Though the causing a change may require an activity, it is not itself an activity." (Cf. H.A. Prichard, "Acting, Willing, Desiring", pg. 42)

54 And, if one is disposed to make decisions, i.e., is a person, it is just such conditions which would activate that disposition.

55 Because one of the conditions required for making such a decision, i.e., one of the conditions of [T], was unsatisfied, or because he was, at that particular time, incapable of decision, i.e., asleep or unconscious.

56 Because what he did had, in fact, come about as a result of other factors.

57 This ambiguity would, of course, permeate the entire structure and be reflected in 'action', 'want', as well as all other terms of the system. When applied to such beings, they would not have the same meaning as they have when used to describe persons in the full-blooded sense.

An infant might be recognized as a person in the sense of a potential person which might be defined as follows:

J is a potential person if, and only if, J shares in some of the characteristics manifested by persons (which may or may not be physical characteristics) and, given our present knowledge of biological development and barring unforeseen factors, accident, etc., J might reasonably be expected to become a person in the primary sense.

On this basis, we might account for our natural inclinations to recognize an infant, or even a foetus, whether it grows to maturity or not, as a person. A congenital defective might be recognized as a person in the sense of person manqué which may be defined as

J is a person manqué if, and only if, J shares in some of the characteristics (which may or may not be physical characteristics) of persons or potential persons.

These definitions, or ones like them, would reflect the close relationship which our notions of a person, as it applies to such individuals, has to that of a person in the full-blooded sense, while preserving the distinctions which we intuitively acknowledge.

58 See, the Blue Book, passages cited in footnote 44.

59 As an example we might invoke "the tendency of lonely old ladies to treat their pets as mute, inglorious children". (Cf. Aune, op. cit., pg. 220.) But many other and more flagrant examples are readily available.

60 Homans, George S., The Nature of Social Science, pg. 3.

61 Although perhaps considerably more complex.

- 62 Sellars, Wilfrid, "Theoretical Explanation", in Philosophical Perspectives, pg. 333.
- 63 Ayer, A.J., "What is a Law of Nature?", in Readings in the Philosophy of Science, edited by Baruch A. Brody, pg. 51.
- 64 Braithwaite, R.B., Scientific Explanation, pg. 302.
- 65 Nagel, op. cit., pg. 52.
- 66 Ayer, op. cit., pg. 50.
- 67 Braithwaite, op. cit., pg. 2.
- 68 Popper, Karl R., Objective Knowledge, pg. 183.
- 69 Hempel, Carl G., Philosophy of Natural Science, pg. 2.
- 70 Loc. cit.

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