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RELATIVISM AND REALISM IN SCIENCE

Edited by

ROBERT NOLA
Department of Philosophy, University of Auckland, New Zealand

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THE STRONG SOCIOLOGY OF KNOWLEDGE WITHOUT RELATIVISM

0. INTRODUCTION

Under the more or less established picture of the discipline, the sociology of knowledge — if you prefer, of received opinion — eschews any form of relativism. It distinguishes between knowledge proper and mere ideology and it seeks only to give a social explanation of the claims made by the latter. At the cost of having to deploy such a controversial distinction, it avoids any suggestion that serious cognitive claims — in particular, those of respectable science — are a function of local context. On the contrary, it suggests that certain claims may enjoy absolute merits, transcendent of their context of origin. [For a contemporary version see Laudan (1977).]

In recent years the sociology of knowledge has broken with this tradition of respect. It has been presented, and indeed pursued, under the guidance of the so-called strong programme. This involves four constraints on the sociology of knowledge, which have been more or less canonically formulated as follows (the passage is from Bloor (1976), pages 4–5):

1. It would be causal, that is, concerned with the conditions which bring about belief or states of knowledge. Naturally there will be other types of causes apart from social ones which will cooperate in bringing about belief. [Also see Bloor (1981), page 199.]
2. It would be impartial with respect to truth and falsity, rationality and irrationality, success and failure. Both sides of these dichotomies will require explanation.
3. It would be symmetrical in its style of explanation. The same types of cause would explain, say, true and false beliefs.
4. It would be reflexive. In principle its patterns of explanation would have to be applicable to sociology itself. [Also see Barnes (1974).]

The strong programme is clearly very attractive. It is independent of the sort of controversial distinction which the weak programme, as we might call it, is forced to deploy. It has the hallmark of an empirical,

Robert Nola (ed.), Relativism and Realism in Science, 81–91.

open-minded plan of work. And it holds out the promise of iconoclastic results as the claims of scientists, so often ascribed almost vestal purity, come within the embrace of the sociologist. [See Bloor (1976), Chapter 3.]

The only feature of the strong programme that might give one pause is that it is taken by its defenders to entail a full-blooded relativism [See Barnes (1974), page 154; Bloor (1976), page 142; Barnes and Bloor (1982).] In this respect, as in those which have a more immediate appeal, it is held to be the contrary of the weak programme that it sought to replace.

The question with which I am concerned in this paper is whether we can espouse the strong programme for the sociology of knowledge without necessarily committing ourselves to relativism. Can we have the best, as many will see it, of both worlds? I shall try to establish, against the defenders of the programme, that we can.

My paper is in three sections. First I look at the relativistic image of knowledge, in particular scientific knowledge, that is associated with the strong programme. Next I show that the tenets of the programme can and should be interpreted so that such relativism is not entailed. And finally I argue that it is an independent commitment to a sort of conservatism which best explains the relativistic inclinations of defenders of the programme.

1. THE RELATIVISM OF THE STRONG PROGRAMME

Barnes and Bloor (1982) argue that relativism about beliefs on any topic is motivated by the observation that those beliefs vary widely — and vary so as to generate conflict — between individuals, schools, periods, cultures, or whatever. But such variety does not amount to relativity, as they admit, since it may still be the case that at most one of the possible sets of beliefs is true. Relativism begins to appear at a second stage when, in seeking to explain the variety, one asserts that what people believe is determined by their local context. Yet even such context-related variety falls short of relativity, as they again acknowledge, since it may be that one of the contexts is more suitable than others for the generation of true beliefs. Relativism only comes properly on the scene when one denies that any contexts are superior in this regard.

This last, crucial claim comes to what Barnes and Bloor describe as

an equivalence thesis: a thesis to the effect that there is no difference of quality between the situations, and certainly between the beliefs, of contending parties. One might seek to express the thesis in the claim that all beliefs are equally true or equally false but many paradoxes lie along that way. Barnes and Bloor claim to find a more satisfactory expression of this equivalence in the postulates of impartiality and symmetry.

> All beliefs are on a par with one another with respect to the causes of their credibility. It is not that all beliefs are equally true or false, but that regardless of truth and falsity the fact of their credibility is equally problematic. [Barnes and Bloor (1982), page 23.]

It is admitted that those who believe certain things will usually have reasons to offer for their beliefs and will always regard their beliefs as true. It is admitted furthermore that someone — for our purposes, the sociologist — who seeks to explain a set of beliefs will usually hold a position on their rationality and truth-value. What is maintained in this expression of relativistic equivalence is that the assessment has no bearing on how the sociologist ought to go about explaining the beliefs, and that equally the explanation he endorses has no relevance to how he ought to assess them.

The fact that the sociologist thinks the beliefs are true or rational, for example, does not give him any reason to think that questions of explanation should be answered one way rather than another.

> All of these questions can, and should, be answered without regard to the status of the belief as it is judged and evaluated by the sociologist's own standards. [Barnes and Bloor (1982), page 23.]

And the fact that he thinks certain beliefs are explained by factors usually associated with falsehood and irrationality, for example, does not give the sociologist a ground for making an unfavourable assessment.

> Whether a belief is to be judged true or false has nothing to do with whether it has a cause. [Bloor (1976), page 14.]

It may seem unobjectionable, and not particularly relativistic, to separate questions of explanation and evaluation in this way. One might evaluate the beliefs of others as rational and true and think that since this could be a happy accident, one ought not to let that influence one's explanation. Equally, one might explain the beliefs of others as caused

by factors usually associated with falsehood and irrationality but allow that they may yet happen to be, if not rational, at least true.

But the separation intended by Barnes and Bloor goes much deeper. This becomes clear when it is extended, as the postulate of reflexivity requires, to the sociologist's study of his own beliefs. Although he regards his beliefs as true and probably as rational, the sociologist is forced to deny that his regarding them so goes in any part to explain why he holds them; otherwise assessment would influence explanation. Equally, although he finds that his beliefs on a certain topic are fully explained by factors usually associated with falsehood and irrationality, he is not thereby given any reason to think again about them; otherwise explanation would affect assessment. Barnes (1974) embraces the result.

A deterministic account of the creation of the arguments presented here is perfectly possible and acceptable. Even if the account cited 'external' social factors, this need not influence the evaluation of the knowledge thereby explained. [page 155. Compare Hesse (1980), pages 49—50.]

The reflexive case brings out the relativistic aspect of the claim made by Barnes and Bloor in their equivalence thesis. The idea is not just that methodologically it is advisable to keep explanation and evaluation apart. It is a metaphysical thesis to the effect that the causal factors in virtue of which beliefs are explained have nothing whatsoever to do with how they should be evaluated. Questions of evaluation — questions of truth and falsity, rationality and irrationality — float free of the relation between beliefs and the world encountered by believers. They are epiphenomenal matters on which believers make a judgment by the standards of the local context, without that judgment reflecting or initiating any relevant causal connection.

So much then for the relativism associated with the strong programme. In conclusion I want to emphasise that this particular form of relativism has a distinctively conservative cast. It means that no one ought to be troubled by having his beliefs sociologically explained, even explained in a manner that seems to debunk them. He can go on holding the beliefs in the face of any such explanation, for he need not think that they are any the less justified in the local terms of justification that he endorses.

Barnes gives nice expression to this conservatism.

A scientific sub-culture, with its own esoteric procedures, competences, objectives and standards, is just like any other. Take painting, for example . . . If artists respond to a demand for altarpieces, or for prestige extravaganzas, and consequently modify their methods, sensibilities and standards of judgement, it is not assumed that by virtue of that very fact they have devalued their art. This is how things should stand also in the empirical study of science, and increasingly it is how they do stand. [Barnes (1982), page 117.]

The point of the sociology of knowledge is to understand beliefs, not to change them.

The conservatism supported by the strong programme gives it an element in common with the weak programme that it seeks to replace. If sociology is supposed to concern itself only with beliefs that are irrational, and presumably that are irrational by common consent, then equally no one in the ranks of regular believers, and certainly no one in the ranks of scientists, has anything to fear from the sociologist's probings. The weak programme makes it illicit to probe respectable thoughts; the strong ensures that the probing will be innocuous.

2. RELEASING THE STRONG PROGRAMME FROM RELATIVISM

To an outsider the most striking thing about the strong programme is that it can be quite naturally construed so that it does not entail the relativism with which it has been associated. The postulates quoted at the beginning may not be inconsistent with the conservative relativism which Barnes and Bloor read into them. But they are also consistent, it seems to me, with a critical stance which leaves open the question between relativism and its opposite.

Consider the following principle, which gives expression to a common notion of the ground for self-criticism: one should regard one's beliefs as rational, i.e., one should regard oneself as rational in holding them, if and only if one sees them as supported by appropriate as distinct from inappropriate causal factors — that is, by factors which tend to produce true beliefs. [See Bloor (1976), pages 32—39.] One should regard them as rational if one sees them as caused in this way, because rationality consists in their being produced by factors conducive to truth. One should regard them as rational only if one sees them so, because when one regards them as rational one must assume that one's regarding them in that way — a factor surely conducive to truth — helps sustain them.

Barnes and Bloor are committed by their conservatism to denying the truth of any principle of this kind. And yet it is striking that one can endorse the principle without making any commitment for or against relativism. One might still hold the relativistic thesis that different contexts, with different standards of appropriateness and rationality, may generate inconsistent beliefs and that there is nothing to make one context better than another. One might be non-relativist and deny that different contexts could produce inconsistent beliefs. Or one might be anti-relativist and admit that different contexts could do this but maintain that at most one such context employs the right standards of appropriateness. The principle is compatible with the full range of positions.

If we consider the strong programme under the assumption that the principle is sound, or even under the assumption that it may turn out to be sound, then a quite non-conservative reading suggests itself. Causality: the explanation of belief is always causal, whether or not it is the sort of explanation that can be comfortably endorsed by the believer, invoking features that he, given his context, thinks appropriate. Impartiality and symmetry: the sociologist ought to explore the social antecedents of every sort of belief with an open mind as to how it is to be explained. And reflexivity: the sociologist ought to be prepared to apply this approach to his own beliefs, continuing to maintain those beliefs only so far as there is a persuasive causal account of them that he can endorse.

Unlike the conservative construal offered by Barnes and Bloor, this reading of the strong programme gives it a critical cast. The idea is that the sociologist ought to approach his task, open to the possibility that what he discovers will be found subversive by those whose beliefs he explains. He is open to this possibility because, while he does not let his rational assessment of beliefs inhibit his attempt to explain them causally, he does admit that the causal explanation he comes up with may motivate a reconsideration of their rational status on the part of the believers; indeed it may also generate a reconsideration on his own part too. This construal does not protect the subjects of the sociologist's investigation from the effect of his work. It allows for the possibility of a critical influence.

The crucial difference between the two readings comes in the way in which the divide is drawn between explanation and evaluation. The conservative, relativistic reading asserts that neither should influence the other, because there is no connection between causal origin and rational or veridical status: this has the standing of a metaphysical thesis. The critical reading says that rational evaluation should not influence causal explanation, because to let it do so would be to introduce an uninformed prejudgment, but that causal explanation may be expected to affect rational evaluation, at least on the part of believers. This line is pressed on purely strategic grounds; there is no suggestion of a metaphysical thesis. [See Collins (1981) for inklings of a similar approach.]

I propose that the strong programme ought to be understood in the critical fashion rather than in that which presupposes a conservative relativism. I will mention three considerations in support of that proposal.

The first is that the critical reading is more sensitive to the beliefs of the subjects whom the sociologist of knowledge studies. It leaves it an open question as to whether or not something like the principle of self-criticism is sound, whereas the conservative construal has to assume that it is unsound. But the principle of self-criticism is implicit in ordinary practice, since when people take their beliefs seriously — when they see them, for example, as science rather than ideology — then they distinguish between debunking and non-debunking explanations of them and they feel required to respond to debunking ones. Those who support the conservative reading of the strong programme have to argue then that ordinary practice is misguided on this matter. Common sense has to be won around to a rather startling point of view. Viz.: "No sound basis has been found for a distinction between 'science' and 'ideology'." [Barnes (1982), page 111.]

A second consideration is closely related. It is that because of the metaphysical thesis required for its form of relativism, the conservative reading is philosophically more committed than the critical one. Barnes and others make great play of the alleged fact that unlike their opponents they do not shackle empirical work with philosophical presuppositions. But while they may do better in this regard than defenders of the weak programme, they do considerably worse than someone who construes the strong programme in a critical fashion: such a person can remain neutral, after all, on the issue of relativism. There is irony then in the following remark from Barnes (1979):

> It was not by following the philosophical orthodoxy on scientific rationality that the history of science made its enormous contribution over recent years, and generated such a wealth of philosophical problems; nor, at the present time, is there the slightest

indication that the field would benefit from tying itself to the apron-strings of philosophy. (page 253).

Indeed.

The third reason why I propose that the strong programme should be construed in the critical fashion is that it remains just as attractive under this reading as it does under the other. It does not have to deploy any controversial distinctions. It bears the stamp of a truly empirical, open-ended research programme. And it holds out the prospect of some iconoclastic results. Indeed it does this more surely than the other reading, for the prospect here is that some results may challenge believers to counter the explanation or reconsider their beliefs. The prospect there was only that some results would scandalise those who held a mistaken conception of the status of scientific belief.

Finally, a qualification. I hold that how utterances are interpreted depends on how they are explained, or at least on how utterances involving the same words are generally explained. [See Macdonald and Pettit (1981).] This means that, consistently with the claims of a scientific theory being construed in a certain way, not all those claims — I assume that some of the crucial terms occur only in such claims — can be explained in a manner which, from the point of view of explainer and explainee, is debunking. I therefore take the impartiality and symmetry postulates to entail, not that all beliefs on a given topic can be debunkingly explained — *salva interpretatione* — but that any particular claim or family of claims may be susceptible to such an explanation. [Compare Turner (1981).] It is true distributively of any specific claim that it may be explained in that way; but it is not true collectively of all claims that they may be so explained.

This is a qualification, because it takes from the strength of the strong programme. But notice that the reduction in strength does not come of imposing a critical rather than a conservative reading on the programme. If my case for the diminution is sound then it carries under either construal.

3. EXPLAINING THE RELATIVISM OF THE STRONG PROGRAMME

What we have seen is enough in my view to make us prefer the critical to the conservative reading of the strong programme. But it may be useful, in conclusion, to examine the likely pressures that drive Barnes, Bloor and the Edinburgh School in general towards the conservative construal. If it turns out that they are pressures which we need not feel then this will support us in our preference.

A first thought might be that they find relativism independently attractive and that this is what motivates the reading. But the thought leads nowhere, since the critical reading of the programme, as we have seen, is also compatible with relativism. Notice too that members of the Edinburgh School are generally anxious to suggest that they are driven by their approach to adopt relativism, not the other way around. [See Barnes (1974), Epilogue.]

Second thoughts raise the possibility that it is an independent commitment to conservatism rather than relativism which motivates the Edinburgh reading of the programme. If this hypothesis is sound, then conservatism must entail relativism and conservatism must look like an independent commitment which it is plausible to ascribe to members of the School. Both conditions are fulfilled and I espouse the hypothesis for that reason.

Conservatism, as it is understood here, holds that no believer ought to be disturbed by the causal explanation of his beliefs, no matter what the factors invoked. He ought not to be driven to reconsider their truth-value; he ought not to be driven even to question their rationality. Such a thesis requires the view endorsed by Barnes and Bloor, that matters of evaluation float free of the causal origins and connections of beliefs. And that view amounts to their rather distinctive brand of relativism. What will have to be said is that while the standards governing evaluation differ from context to context, no one set of standards engages any more than others with the causal bonds that link believers to their world; and, this being so, that no one context can be hailed as superior to others.

I conclude that an independent commitment to conservatism would readily explain why the Edinburgh School takes a relativistic stance on the strong programme. But is it plausible to ascribe such a commitment to them? I believe that it is.

The reason is that they see conservatism as the price that must be paid for a sort of value-freedom which they espouse: a value-freedom that they describe themselves as their naturalism.

Sociological accounts have no bearing upon whatever evaluations one may wish to put

upon science; indeed, the major reason why such accounts are frequently self-described as 'naturalistic' is simply that they have no evaluative axe to grind. [Shapin (1982), page 187.]

The idea is that if the sociologist is to see his enterprise as value-free then he must disavow any intention to challenge or change those whom he studies.

A good expression of the idea is found in Barnes and Shapin (1979):

> It might appear at first that what is being talked of here is a possible reversion to the state of affairs before the last world war when a significant movement of Marxists and radicals sought to expose science as a function of its social context. But this is not at all the case. In the 1930's both sides to the great debates accepted the importance of the internal/external dichotomy, and both sides recognised that sustaining their discourse were opposed methods of evaluating science and opposed policies towards it. In contrast, the current move to naturalism is not systematically related to any distinctive evaluation of science or policy towards it. Naturalism closes no evaluative or political options; it merely ejects them from historical practice. It may be, indeed, that the main impetus to naturalism stems from professional, disciplinary considerations on the part of historians and others engaged in the study of science. A recognition that explicit evaluative concerns and commitments are not conducive to good history may be the major factor. (page 10)

I conclude that not only would an independent commitment to conservatism explain the Edinburgh reading of the strong programme; it is also plausible to ascribe such a commitment to them. They take on that commitment with their fundamentalist renunciation of the influence of values.

The conclusion leaves us with one last question. Ought we to question our own reading of the strong programme, out of a wish to eschew values? I hold that even if that wish were reasonable, it does not provide a reason why we should raise a single query about the critical reading. The sociologist of knowledge who understands his work critically does not impose his values on it; in this regard he differs from the adherent of the weak programme. All he does is to endorse a conception of his work under which it may constitute a challenge to believers. Whether it does or not, he is prepared to leave to them. There is no reason here even for the most ardent evangelist of value-freedom to raise a protest.

Under the critical reading, the sociology of knowledge begins to look like the sort of discipline which critical theorists of the Frankfurt stamp might approve. It promises to offer a genetic form of the Ideologiekritik of science: a form of critique based on the genesis of the beliefs in question. [See Geuss (1981).] But lovers of value-freedom should not

be disturbed, for one difference remains. This is that under my reading the sociologist of knowledge need not claim to know which of his findings will be challenging, which not. A fortiori then, he need not be moved to seek certain findings rather than others out of a belief — a value-laden belief — that those findings will be challenging or encouraging in their effect.[1]

Australian National University

NOTE

[1] This article derives ultimately from a paper read to a meeting in the University of Leeds, 1979 of the Theory Group, British Sociological Association. I am grateful for comments on matters in the paper to Robert Nola and David Papineau; I found Papineau (this volume) a useful stimulus to my own thought. The paper was written during an Overseas Fellowship in Churchill College, Cambridge and I am also grateful to the College for the facilities put at my disposal.

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