BOOK REVIEWS -- *Philosophy of Science* 50 (1983), pp 350-352

DAVID STOVE. *Popper and Beyond.*Oxford: Pergamon Press (1982), ix + 116 pp.

As a rule we do not pay much attention to people who insist that the earth is flat or that the species were specially created. Yet we take seriously and expend a great deal of effort investigating the views of philosophers who make equally implausible claims. Philosophies which question scientific objectivity and progress are rarely dismissed out of hand. Worse still, they are often seen as providing the staunchest defence of scientific research. David Stove's aim in *Popper and Beyond* is to explain how this sorry situation came about and how it has managed to persist largely undetected for so long.

 In Stove's view, Popper, Lakatos, Kuhn and Feyerabend are all guilty of irrationalism. If these philosophers are correct, we have no reason for believing that some theories are better than others, nor for thinking that much more is known now than four hundred years ago. With the exception of Feyerabend, however, none of these philosophers sees himself as impugning the rationality of science. Indeed, Popper presents himself as championing rationalism, and for many he is an Enlightenment figure without peer. But, as Stove insists, the self-images and public perceptions of philosophers are often misleading. In the case of Popper, Lakatos and the others, what they actually say is no less irrational than the claim that the earth is flat. The interesting question is how these philosophers manage to create the impression that they are attending to actual science and how—Feyerabend aside— they actually seem to be defending it against its irrationalistic critics.

 One way this facade is generated, according to Stove, involves the use of literary tech­niques that make it seem as though science is being endorsed when it is not. We think that the four authors are praising science because they pepper their discussions with "suc­cess words" like "fact", "discovery", "knowledge" and "progress". But this is wrong since these words are used in ways that deplete them of their "success implications". Lakatos and, to a lesser extent, Popper and Feyerabend accomplish this by means of raised-eyebrow quotes. Indeed for Lakatos there appear to be no such things as facts or discov­eries, only "facts" and "discoveries". On the other hand, Kuhn and occasionally each of the others pull off the trick simply by using success words as though they are without success implications. Thus Kuhn repeatedly and unselfconsciously speaks of knowledge as being mistaken and of discoveries that can no longer be documented (p. 11 and p. 12). This is what Stove refers to as the strategy of neutralizing success words.

 In addition, the four authors reinforce the impression that their views are worthy of serious consideration by means of the strategy of what Stove calls "sabotaging logical expressions". The trick here is to direct attention away from the inconsistencies in one's view by taking straightforward assertions to be assertions about what scientists believe or should believe. Stove traces this strategy to Popper's extraordinary discussion of the con­flict between the claim that probability statements are scientific yet falsifiable and the claim that scientific statements are always falsifiable. In response to this difficulty Popper ob­serves that scientists adopt the convention that extreme probabilities should be rejected (or—on another interpretation—that this is a convention that should be accepted). But this response does nothing to resolve the original problem. The conflict that Popper so clearly articulates does not disappear as soon as we recognize that scientists either do or should take probability statements to be falsifiable. Methodology and logic are two different things.

 These points about the way in which Popper, Lakatos, Kuhn and Feyerabend corrupt the language are convincingly and entertainingly developed in Part I of *Popper and Be­yond.* In Part II, Stove goes on to consider the question of why these philosophers embrace irrational views. Stove's answer is that they embrace them because they unquestioningly accept Hume's skeptical argument concerning induction. The problem, says Stove, is that they accept "the key premise of Hume's irrationalist philosophy of science" (p. 87), which states that sentences serve as reasons for other sentences only if they logically entail them. This argument of Stove's seems reasonable, at least in the case of Popper, whose whole philosophy—*mirabile dictu—was* explicitly developed in response to Humean skepticism. Stove's discussion, however, is burdened by an overly detailed examination of Hume's skeptical argument (Chapter 4). And it suffers from a failure to recognize that there are influences other than Hume and Popper not just on Kuhn and Feyerabend but even on Lakatos. In the case of Kuhn, we must also recognize the influence of Butterfield, Conant and Koyii; in the case of Feyerabend, there is Brecht and Wittgenstein; and in the case of Lakatos, Hegel and Polya must also be taken into account. Even modern irrationalism has a complicated pedigree.

 Nevertheless, the skeptic is all too often the hidden adversary. In this respect at least, recent philosophy of science has indeed degenerated since the heyday of logical positivism. However, it would be a mistake to suppose—as Stove's uncritical reference to the work of Camap and Hempel suggests—that we would be better off with the old philosophy of science. What Stove overlooks is that much of the amorphousness, even the illogicality, of recent discussions of science stems from a real and important problem. If we pay attention to recent history of science—as surely we must—we can no longer rest content with positivist philosophy of science. Whatever their faults, Kuhn and the others have managed to convince us of the need to rethink the logical positivists' anodyne picture of science. To say that some philosophers have not adequately come to terms with the his­torian's findings is one thing; to suggest that modem "irrationalism" is rooted in a pseudo-problem is quite another. Stove is surely right to say that the philosophical ideas of Popper, Lakatos, Kuhn and Feyerabend are badly flawed. But as we attempt to avoid their bar­barisms and to escape the grip of Humean skepticism, we should not discard the excep­tionally important problems that prompted at least some of their views. *Andrew Lugg, University of Ottawa.*