David Stove thinks that the four most influential philosophers of science since the war hold views so silly that they dare not reveal them to their readers. His primary aim in this book is to explain how the deception is maintained. The philosophers he has in mind are Karl Popper, Paul Feyerabend, T. S. Kuhn and the late Imre Lakatos. And the common absurdity he attributes to them is their extreme scepticism about science. They deny, he says, that there are ever good grounds for any scientific theories, or indeed that science ever leads us to any knowledge about the natural world.

Professor Stove argues that these philosophers manage to get away with this irrationalist foolishness only because they maintain the appearance of scientific rationalism while denying its substance. They achieve this by adopting a kind of newspeak. They keep the old rationalist words but give them new irrationalist meanings. Thus, for instance, they will use terminology which implies cognitive achievement, such as "knowledge" or "discovery", while surreptitiously removing the normal implication that the propositions "known" are true, or that the things "discovered" are facts. Sometimes, it is true, they have the good grace to signal this by putting the relevant words in quotation-marks. But as often they omit these. And in either case, according to Stove, the effect of this usage (and of various related devices that he identifies) is to create in the unwary reader the impression that these philosophers respect the achievements of science, when in fact they do not.

A natural reaction to Stove’s obviously heartfelt polemic is that he must somehow have missed the point. It is true enough that the writers he discusses reject traditional conceptions of scientific success. And perhaps, having done so, it would be better if they avoided terms like "knowledge" and "discovery", which might obscure the radical nature of their conclusion from unsophisticated readers. But surely, one feels, this is a trivial complaint. There must be more to these writers than that. Isn’t the important thing their new conception of the aims of science? Or if not that, at least the negative reasons they have put forward for distrusting traditional notions of scientific worth? When one turns to these questions, one does indeed find things to say in favour of most of the authors that Stove attacks. But there is one exception, one case where the emperor really doesn’t have any new clothes. Stove has got Sir Karl Popper exactly right.
As every schoolboy knows, Popper's view of science hinges on his rejection of induction. Repeated instances are no heuristic good for suggesting theories, and no logical good for supporting them either. Fortunately scientists can manage without inductive support. All they need is imagination (to think up bold conjectures with), honesty (to make them look for falsifications), and clear logical heads (so that they know what to do when they find them).

The trouble with this is that in his concern to keep scientists on the logical straight and narrow, Popper quite forgets to explain why they, or anybody else, should believe their theories. The boldness of a conjecture is certainly no reason to expect it to be true. And why should successfully surviving attempts at falsification help if, as Popper insists, repeated instances don't support theories? Popper does, it is true, specify principles which are supposed to guide scientists in their "acceptance" of theories. But this is scarcely of much interest, given that "acceptance" has nothing to do with reliable belief or sound action. At bottom Popper's science has the same status as Herman Hesse's glass-bead game: it's no doubt terribly profound, but even if you keep on reading right till the end you never quite get told what it's all for.

Surprisingly few of Popper's many enthusiasts recognize his underlying epistemological nihilism. And for this Stove surely has the right explanation. There are occasions where Popper does come clean and admit that he thinks scientists have no positive reasons for believing any theories. But they are few and far between. Far more familiar are his repeated reassurances that of course scientists have "reasons" for "accepting" their theories. And it is only if we read the very fine print that we realize that these are "reasons" and "acceptance" only in Popper's private sense.

Perhaps, though, Popper has interesting reasons for his peculiar view of science? Well, there are reasons — but they are not so much Popper's as David Hume's. Far from having solved the problem of induction (as he is mysteriously wont to claim), Popper has simply swallowed Hume's sceptical arguments whole. Stove spends some time on this, for it allows him to repeat and refine the analysis of his earlier *Probability and Hume's Inductive Scepticism* (1973), where he showed that, contrary to widespread impression, Hume offers no argument for his crucial presupposition that all good reasons must be deductive ones.

Stove's extended treatment of Hume is certainly of independent interest: it shows us one possible way of resisting inductive scepticism (and also, incidentally, where Stove's engagingly archaic sentence constructions come from). But it is not particularly relevant to his polemical purposes. Many philosophers other than Popper have failed to spot the flaw in Hume's argument, even if they haven't all tried to build a world-view on their oversight. And it is a pity that Stove does not devote some of the attention he gives Hume to other of the philosophers he discusses. He is far too
quick to dismiss them as purely derivative sinners who have nothing to add to Popper but historical examples.

To start with, it is surely misleading to suggest that Kuhn and Feyerabend want to hide their irrationalism under a bushel. Although they do on occasion lapse into cognitive newspeak, there is nothing covert about their desire to show that science is far less rational than commonly supposed, and in particular that it is far less rational than even Popper thinks. This last suggestion so arouses Stove’s incomprehension that he immediately concludes that Kuhn and Feyerabend must themselves be far less rational than Popper. But he does his cause a disservice here. For Kuhn and Feyerabend have good arguments for going beyond Popper. They in effect show that honesty and clear logical heads are not enough, because of the “theory-laden” nature of statements recording empirical observations; and because of the insulation, stressed by Pierre Duherm, of central theoretical assumptions from direct contact with the evidence. It ill behoves someone of Stove’s epistemological inclinations to treat these arguments as lightly as he does, for they raise as many difficulties for the inductive probabilist as for the Popperian falsificationist.

Lakatos is a different case again. He certainly presented himself as a rationalist. But he had a good case for doing so. This was not just that he made strenuous attempts to defend Popper from Kuhn and Feyerabend. Stove no doubt thinks that is like trying to save Tony Benn from the Militant Tendency. But if Stove had only curbed his impatience, and read Lakatos through to the end, he would have found out that Lakatos was fully aware that falsificationism was no answer to the problem of induction. Indeed two of the papers in Lakatos’s collected writings are concerned with just this topic. His strategy for solving the problem of induction is not Stove’s, and perhaps in the end it won’t work, but at least he deserves some credit for trying.

But these are relatively minor complaints. Despite the title of his book, Stove is far more concerned with Popper than with those who came after. And even if justice is not done to the followers, the leader himself certainly gets his full deserts. In the course of the book Stove exposes a surprising number of Popperian idiosyncrasies as intellectual or linguistic contortions flowing from the initial need to present an essentially irrationalist philosophy as other than is. And he does so with wit and energy. *Popper and After* will serve as an excellent antidote for the many philosophical innocents who are still in danger of being bewitched by Popper.