

The Role of Common Sense in the Debate on Scientific Realism

1. Introduction

Many debates on scientific realism display the following pattern: The antirealist claims that scientific posits are epistemically problematic in ways in which the posits of common sense are not.¹ In reply, the realist argues against the relevance of the alleged epistemic problem, and concludes that we should not be any less confident about scientific entities than about the objects of common sense. This dialectic suggests that the realist and the antirealist agree on some kind of *common sense realism (CSR)*, while disagreeing only on whether or not the realist stance should be extended from common sense to science. However, some arguments in favour of scientific realism seem to *contradict* CSR. This paper analyzes one such argument by Stathis Psillos and asks how the seeming denial of CSR is compatible with other aspects of Psillos's scientific realism.

2. Psillos against common sense realism

The context of the argument is Psillos's critique of Kyle Stanford's (2006) antirealism, which is based on the so-called *problem of unconceived alternatives (PUA)*. The details of Stanford's argument do not matter here, suffice it to say that it precisely follows the pattern mentioned above: According to Stanford, the PUA affects scientific claims in a way it does not affect the claims of common sense, so we have reasons to doubt the truth of the former, but not of the latter. Psillos (2009, 79) disagrees: "[C]ommon sense is *not* a theory towards which we can have a stance of strict and literal belief. Many terms and predicates we use in our commonsensical description of the world are vague and imprecise." Furthermore, he denies that common sense is immune to the PUA: "The biggest – at some point unconceived – alternative to the hypothesis of common bodies is science itself ... science is not just piled upon common sense. It adds to it and it corrects it" (79-80).

These statements may not yet amount to a denial of CSR. That we do not *strictly* believe the commonsensical description of the world does not mean we do not believe it at all. Perhaps Psillos just invites us to regard the claims of common sense as *approximately* true, and this would still be a form of CSR. But if that was his idea, it is hard to see how it could serve as an argument against Stanford; the plausibility of Stanford's antirealism, which combines CSR with an instrumentalism about higher level theories does not hinge on whether CSR is spelt out in terms of *strict and literal belief* or in terms of *approximate truth*. (After all, even *scientific* realism is usually formulated in terms of approximate truth, given that the final theory still eludes us.) Furthermore, Psillos's claim that common sense is affected by the PUA seems to imply that commonsensical beliefs cannot be approximately true. For if a hypothesis does still count as approximately true after it has been replaced by one of its (previously unconceived) alternatives, there is not really a *problem* of unconceived alternatives at all. All this seems to suggest that Psillos does *not* accept CSR.

3. Realism without fundamentalism

But if we deny CSR on the grounds that common sense is corrected by science, then it is not clear how we can be realists about present scientific theories, because they, too, are

¹ The problem may be located in the lack of observability, in the changeability of our scientific theories, or in some other feature.

likely to be corrected by future theories. At least we would need an argument to the effect that science corrects common sense in a more radical way than the way in which later science corrects earlier science. In the absence of such an argument, the only theory worthy of a realist's commitment would be the final, fundamental theory. The resulting *fundamentalist* conception of scientific realism is somewhat counterintuitive (because it implies that science has, as yet, not discovered any *real* entities), but it is a coherent position, which resonates well with those who see scientific realism not so much as a thesis about the *achievements* of science, but about its *aims*.²

The puzzle for the present context, however, is that Psillos (2009, Chap. 2) explicitly (and convincingly) argues for a conceptual separation of scientific realism and fundamentalism, captured in the slogan "realism is about what is real and not about what is fundamentally real" (2009, 38). Psillos insists that scientific realism's conception of reality should not be fundamentalist but *factualist*. According to factualism, when some facts turn out to be reducible to more fundamental facts, they do not lose their factual status, so we should still be realists about them. How is this view compatible with Psillos's denial of CSR? Does he think that there is a relevant difference between the reducibility of claims of common sense and the reducibility of non-fundamental scientific claims? I do not see an argument for this. In fact, there is a further passage suggesting a close analogy between the two situations. Psillos (2009, 92) uses the common sense claim "everything that is left unsupported falls to the ground" as an example of a generalization which holds only *ceteris paribus* (what about balloons?), and therefore has to be replaced by a theory which explains under which circumstances it holds strictly and under which it fails to hold. But this is precisely the way in which scientific theories are replaced by more fundamental theories.

4. An attempted reconciliation

Having described the tension between Psillos's critique of CSR (section 2) and his refusal to identify realism with fundamentalism (section 3), I conclude by sketching a way in which the two positions could be reconciled. I now think that, despite appearances, Psillos (2009, 78-80) does not *really* argue against CSR. Instead, I take him to argue for the following conditional: *If we grant Stanford that the PUA is a problem, then we must reject CSR*. From this it follows via *modus tollens* that whoever accepts CSR need not worry about the PUA. This way of interpreting Psillos's argument brings it back in line with the pattern described in section 1: agreement about common sense, disagreement about alleged epistemic problems of science.

References

- Lyons, T. (2005). Toward a purely axiological scientific realism. *Erkenntnis*, 63, 167-204.
- Stanford, P. K. (2006). *Exceeding our grasp: science, history, and the problem of unconceived alternatives*. New York: Oxford University Press.
- Psillos, S. (2009). *Knowing the structure of nature: essays on realism and explanation*. Basingstoke: Palgrave Macmillan.

² See, e.g., Lyons 2005.