ABSTRACTS

B4.3 Ethical and Political Issues in the Philosophy of Science

Inductive Risk, Epistemic Risk, and Overdiagnosis of Disease
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Philosophers interested in the role of values in science have focused much attention on the argument from inductive risk. In the 1950s and 1960s, Richard Rudner and Carl Hempel argued that value judgments play an ineliminable role in the acceptance or rejection of hypotheses. Recent philosophers of science have not only revived this argument; they have extended it. While Rudner and Hempel focused on one point in the appraisal process where there is inductive risk – namely, the decision of how much evidence is enough to accept or reject a hypothesis – more recent philosophers of science have argued that there is inductive risk at multiple points in the research process. The upshot of these and other extensions of the Hempelian/Rudnerian argument – which I will call the classical argument from inductive risk – is that the research process is shot through with inductive risk. While I applaud the revival of the classical argument from inductive risk, I will argue that some of the purported extensions of the classical argument do not fit cleanly within the schema of the original argument and that, for the sake of conceptual clarity, they should simply be treated as different arguments. I will discuss the growing problem of overdiagnosis of disease due to expanded disease definitions in order to show that there are some risks in the research process that are important – and that should be taken seriously by philosophers of science – that very clearly fall outside of the domain of inductive risk. Finally, I will introduce the notion of epistemic risk as a means of characterizing such risks. This more fine-grained taxonomy of risks in the research process will help to clarify the different roles that values can play in science.

Value free or not, in terms of whether qua science or qua scientists
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Since the distinction between epistemic and non-epistemic values was introduced in ‘value free science’ disputes in philosophy of science, what has mainly been discussed seems to be whether the latter values have a proper place in science qua science. That is, apparently the focus of interest has been to search for or select values that could be seen involved in science as its indispensable components, whether the aim of science is taken realistically or non-realistically. Indeed, this line of arguments is fruitful, in so far as we could make clear and evaluate roles of values in science usually unnoticed even by scientists themselves.
But we should notice here that this kind of argument is apparently based on some assumption about ‘what is a sound science’. It usually starts (particularly in defending social value roles) with taking some scientific practices as ‘good’ examples in order to vindicate the point they make, but at the same time, it rests on some soundness of scientific practice presupposed in them. I think by this assumption, philosophers are now making their arguments risky. One of the important origins of present disputes can be traced back to Rudner’s argument. As his paper’s title indicates, his interest was in the value judgment by scientists qua scientists. Though the present arguments assume that the validity of value use required for science and that for scientists are the same, I think we should rather make some distinction between the two in order to make the whole argument meaningful (also for the society) and to avoid unnecessary confusion, which we see in the actual arguments. This point seems particularly important when we think of moral responsibility of scientists. I’ll talk about this mainly by distinguishing two kinds of uncertainty along the case of the difficulty Japanese seismologists confront after 3.11.