

Risk and the central problems of philosophy of science

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There is a trend toward public engagement in techno-scientific policies. And public risk management is no exception. Then, it should be our main concern how we can balance two goals of risk evaluation; to be scientific and to have democratic legitimacy.

The aim of this talk is to clarify what sort of relevance three major problems in philosophy of science can have to our concern. The three major problems are as follows;

1. The problem of realism: Do theoretical entities really exist? Or, are they only useful fictions to save the phenomena?
2. The problem of rationalism and relativism: Can we discuss the epistemic values and aims of scientific investigations? Or, are they relative to so-called "paradigms"?
3. The demarcation problem: What are the criteria to tell science from non-science?

These problems are highly relevant to our goal, that is to achieve a balance between democracy and science. Our conclusions are;

1. We cannot adopt the realist stance on the reality of risk. Distinction between "the real risk" and "laymen's biased cognition of it" should be abandoned.
2. However, risk evaluation can be scientific despite the fact that it is value-laden.
3. In order to ensure scientific rationality of risk evaluation, we can apply methodological falsificationism to it.

[reference]

S. Shrader-Frechette, Risk and Rationality, University of California Press, 1991

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