

How to launch the Science of Science

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We envisaged the creation of a science which deals with the seventh major event in the history of the earth, that is, the rise of science itself. We named it the Science of Science. The aim of our paper is to map out a blueprint for bringing the science of science it into shape.

Needless to say, even now there are some rudimentary attempts which could fall into the category of the science of science; cognitive psychology of scientific reasoning, sociology of science, scientometrics, anthropological study of laboratories and so on. And also we have long-established field called history of science, which describes the actual developmental process of science in detail. What we lack is something like a canvas on which we can synthesize findings of these preexisting research fields and paint a phenomenon called science with the whole history of the earth in the background.

We claim that a radically naturalized Kantian philosophical project can play a role of such kind of platform for launching the science of science. The Critique of Pure Reason can be re-interpreted as a task analysis of modern science. First, Kant posits a information processing agent which receives manifold of sense as an input and delivers scientific worldview as an output. Then, he sets about a task analysis which tries to answer the question what kind of subtasks are necessitated for this agent to complete the computation of the cognitive function described above.

Nevertheless, Kantian task analysis lacks a viewpoint of evolution which can make an issue of how such a unique information processing agent could and did emerge. In addition, Kantian analysis is too individualistic in that it models an agent doing science as a mind of an isolated individual man. However, the real science is being done by a complex made of many scientists and artifacts such as experimental instruments and institutions like a peer review system etc.

So, the challenge we are facing is to answer the question how we could build social and evolutionary viewpoints into the pioneering project of Kant.

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