



What (Good) is Historical Epistemology?

Reflections on a Conference at the MPIWG, July 2008

By Thomas Sturm

Philosophical epistemology aims to clarify what knowledge is, whether we possess any of it, and how we can justify our knowledge claims, including scientific ones. While epistemology is a strong branch of current philosophy, its universalistic pretensions have often been criticized.

In particular, it has been suggested that knowledge is situated in contexts (biological, social, historical, material) and that epistemology cannot afford to ignore these contexts. One such challenge, which has recently attracted many historians of science, has been named “historical epistemology”. There are several different versions of this approach which, however have mostly been neglected by philosophers up to now. Uljana Feest (Philosophy, TU Berlin) and Thomas Sturm (then MPIWG, now Philosophy, Universitat Autònoma de Barcelona) initiated a conference at the MPIWG in July 2008 that aimed to clarify and evaluate these in talks and discussions with inter-

nationally leading historians of epistemology and philosophers and historians of science. Next to the invited speakers, commentators, and discussants the conference attracted over 120 guests from Europe, America, and Asia, who work in disciplines as diverse as philosophy, history of science, physics, geology, economics, sociology, psychology, art history, and philology.

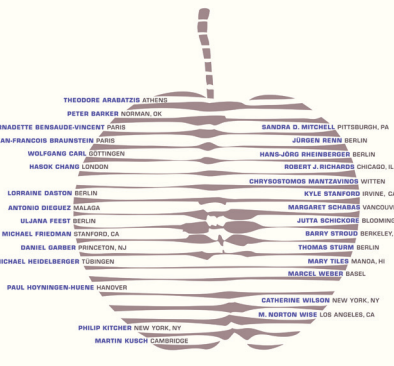
The guiding task was to clarify what versions of historical epistemology exist and the pros and cons each of them presents. What kind of historical enterprise is historical epistemology? What are its basic assumptions, and what are

their rationales? Moreover, in what sense is such a focus on epistemic categories and practices itself a form of epistemology (or philosophy of science)? As papers and discussions were based on studies about specific topics that exemplify or test one or another version of historical epistemology, the conference covered a wide variety of issues. These included the historicity of epistemological categories and standards (such as the replication of experiments in the seventeenth and eighteenth centuries, the relation between perception and judgment, or different models of explanation and causal inference); the historicity of epistemic objects, that is, the “birth, life, and death” of real or apparent objects of research (like phlogiston, the electron, memory, or the economy); and models of scientific development, which were either guided by a neo-Kantian framework or tried to

deal with alleged cases of incommensurability by means of theories of concepts from recent cognitive science.

The way the program was organized reflected three versions of historical epistemology, as they are practiced by researchers at the MPI-WG. Each has its own points of contact to philosophical epistemology or the philosophy of science: (1) According to Lorraine Daston, historical epistemology raises the Kantian question about the preconditions that make thinking this or that idea possible, but views these preconditions as thoroughly historical. Thus, not only our knowledge and evidence changes or grows throughout history, but our understanding of what can count as knowledge can be historicized as well. (2) Hans-Jörg Rheinberger’s version, again, focuses strongly upon the material – especially experimental and technological – conditions under which scientific knowledge develops, and claims that this goes along with a shift away from studying the cognitive subject’s conceptual grasp of objects towards a reflection on the relation between object and concept, which starts from the object to be known. This touches strongly on the realism/anti-realism debate in the philosophy of science, although without being limited to the issue of the meaning of theoretical concepts in science. (3) Jürgen Renn views historical epistemology as an historically founded theory of long-term developments of scientific knowledge. This addresses the philosophical issue of scientific progress, but pursues it in the form of a naturalistic epistemology centered on an empirical explanation – based on models of cognitive science – of how scientists come to know certain things.

**International Conference, Max Planck Institute for the History of Science
Berlin July 24–26, 2008**



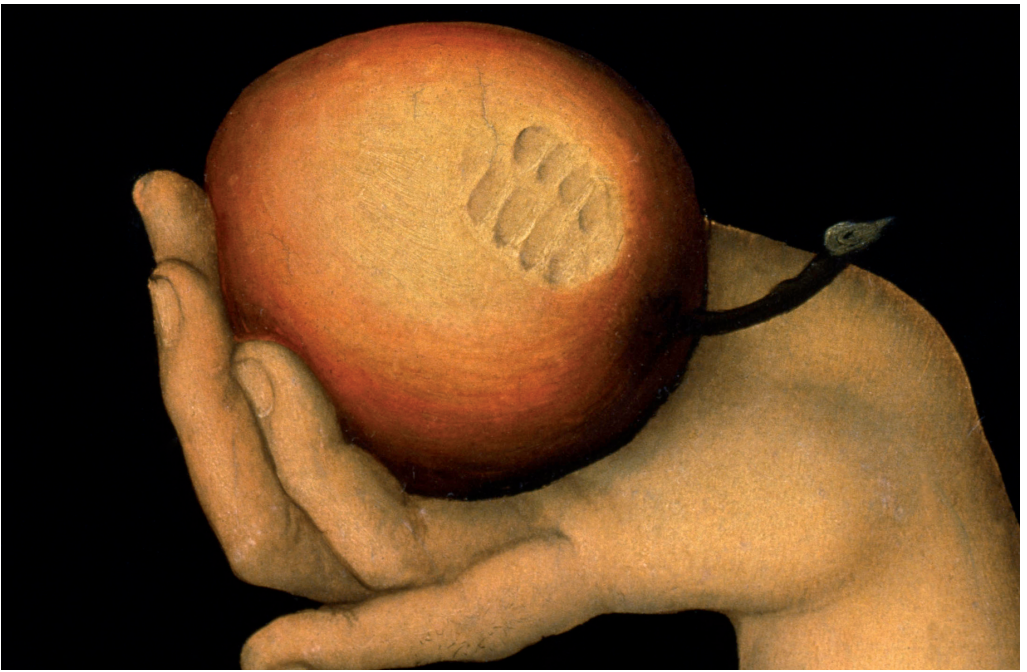
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WHAT (GOOD) IS HISTORICAL EPISTEMOLOGY?

Epistemology traditionally seeks to identify principles for the evaluation of knowledge claims, with the history of science less so one of its aims the investigation of the contents of knowledge production. A recent alternative beyond this divide, opened up mostly by historians of science, has been termed “historical epistemology”. This project raises two basic questions: What kind of historical enterprise is historical epistemology? Conversely, in what sense is it a form of epistemology? These questions will be addressed at the conference, which is structured around issues of (I) epistemic concepts and practices, (II) epistemic objects, and (III) the relevance of scientific research.

Organizers: Thomas Sturm Max Planck Institute for the History of Science Uljana Feest Technische Universität Berlin
Participation is free, but space is limited. Please register with tsturm@mping-berlin.mpg.de

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Lucas Cranach, Detail of *Hand mit Apfel* (1528) (Image reproduced with permission of AKG-Images)

These versions of historical epistemology are not necessarily competitive, but can complement each other. They can also overlap. For instance, as became apparent in the debates over epistemic things, their “lives” are often connected with issues of long-term scientific developments. That certain objects become interesting for researchers at some points, and forgotten or completely ignored at others, for reasons that may not look entirely rational, raises the question as to whether scientific developments actually do entail – to use Thomas Kuhn’s term – “revolutionary” shifts. Likewise, the question as to whether certain steps in long-term scientific developments were rational cannot be answered independently of what the relevant actors believed to be rational pro-

cedures that is, of what their epistemic criteria and standards were.

This has an important consequence. Historical epistemology is destined to involve second-order considerations: One cannot simply reconstruct the development of scientific knowledge as such. There must also be a parallel program of reconstructing what the agents thought were permissible or recommendable steps, or how they understood such concepts as knowledge, evidence, observation, probability, objectivity, and proof. In a surprising way, this understanding of historical epistemology converges also with Michael Friedman’s influential neo-Kantian approach: He argued that in order to solve Kuhnian problems of revolutionary gaps in sci-

entific developments, during, say, the Einsteinian revolution, one should study not merely the history of the relevant research, but also the philosophical frameworks that guided certain important steps in that revolution.

Several philosophers at the conference, however, tried to establish a different connection to the history of science. They were all inclined towards naturalism, the view that epistemology should use the empirical sciences for studying how knowledge grows and can be improved (and should give up attempting to look for a priori presuppositions of knowledge). Peter Barker, Michael Heidelberger, Philip Kitcher, and Sandra Mitchell defended this approach. Kitcher even introduced a new version of historical epistemology, claiming that philosophers abandon a static view of knowledge and its justification, adopting instead a dynamic picture of science, looking to history for reliable methods of revising beliefs. That does not necessarily imply a subordination of historical epistemology to naturalized epistemology. As Mitchell noted, the kind of naturalistic epistemologist who accepts that science changes historically must accept that his or her own naturalistic conceptions of science also can, or even should, continue to change as well: “If epistemology has a history, it also has a future.” That, however, invites a further question: Can this approach explain scientific change without us-

ing neokantian assumptions or without losing all substantive naturalistic ingredients?

In such discussions, new possibilities of connecting history of science and philosophy emerged. However, these options require that typical disciplinary perspectives and practices are more vigorously critically evaluated than has happened so far – a challenge for the future of historical epistemology.

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