

Sunday, June 27 9:00-12:00 AM, rm. 148

Symposium

**“A Path To Be Retaken? Twentieth Century Political Theories of Science and Defenses Against Them”**

**Don Howard: “Scientific Objectivity as ‘Socially-Organized Experience’: Early Marxist Debates about the Social Character of Scientific Knowledge.”**

**Thomas Uebel: "Political Philosophy of Science in Logical Empiricism"**

**Heather Douglas: “Robert Merton and the Ethos of Science”**

**Heather Douglas, Don Howard, Thomas Uebel**

(Primary contacts: Howard and Uebel)

One challenge that contemporary philosophers of science faces is that of developing theories of science capable of theorizing the role of the social in scientific practice without compromising science's claim to objectivity. As if that were not enough, some philosophers go still further in demanding these conceptions of the social to be of a sort that grounds their claim to intervene in the political discourse of the day as it pertains to science policy etc. Such theories must both locate the precise point where the social turns political and define what they take the political to be. Needless to say, in this dialectic both poles are contentious.

To fix some reference points for the future, the present panel session discusses responses from historical figures in the philosophy and sociology of science that are associated closely with various aspects of this problematic. The members of the panel will discuss the contributions made by forgotten writers of the revolutionary socialist and pre-Bolshevik Marxist tradition, the contrasting positions taken by different factions of the logical empiricist movement, and the motivation behind and changes in Robert Merton's classical position in the sociology of science.

Stretching from the late nineteenth to the mid-twentieth century, the contributions under discussion feature numerous points in contention amongst them, but also many that regularly get invented anew whenever the problematic at issue is revived. This session aims to present them in their proper historical context and so help clarify some of the terms of the present debate.

**Don Howard: “Scientific Objectivity as ‘Socially-Organized Experience’: Early Marxist Debates about the Social Character of Scientific Knowledge.”**

A prominent theme in late-nineteenth and early-twentieth century Marxist philosophy of science, one forming an important part of the context for later Vienna Circle discussions about objectivity as intersubjectivity, is a debate about the social roots of scientific objectivity. The starting point is an oft-quoted remark from Engels's *Anti-Dühring* (1878): “The sovereignty of the thought process is realized in a series of most unsovereign thinking people.” While acknowledging the social aspect of science, orthodox Marxists, most notably Lenin, in *Materialism and Empirio-*

*Criticism* (1909), nevertheless grounded objectivity in the material reality of the objects of knowledge. By contrast, Austro-Marxists such as Friedrich Adler and Russian Machists such as Alexander Bogdanov (he also the proponent of an early form of systems theory, which he termed the “theory of organization”), grounded scientific objectivity in the social organization of scientific practice. In their work, Ernst Mach’s notion of objectivity as intersubjectivity was, therefore, given a pointedly non-idealist interpretation, though Lenin sought to deride it as just a disguised form of idealism.

Studying this Marxist debate about objectivity is important for understanding later developments within the Vienna Circle, as with the non-Marxist socialist Carnap’s famous revival of the Machian notion of objectivity as intersubjectivity in the *Aufbau* (1928) and the Austro-Marxist Neurath’s more explicitly social perspective on theory choice. But it is also important as background for later efforts to theorize the genuinely epistemic relevance of social institutions and organization.

Don Howard is a philosopher and historian of science, currently Director of the History and Philosophy of Science Graduate Program and Professor of Philosophy at the University of Notre Dame. A 1979 Ph.D. from Boston University, Howard’s research concerns mainly the history and philosophical foundations of twentieth-century physics and the history of the philosophy of science. A co-founder in 1990 of HOPOS, The International Society for the History of Philosophy of Science, Howard has also worked as an assistant and contributing editor for *The Collected Papers of Albert Einstein*.

### **Thomas Uebel: "Political Philosophy of Science in Logical Empiricism"**

Did logical empiricism possess a political philosophy of science and, if so, what made it ‘political’? As in other matters, logical empiricism did not speak with one voice on this. Already on the so-called left wing of the Vienna Circle differences obtained, to say nothing of logical empiricism in exile. This talk will begin by reconstructing the type of political philosophy of science that was developed by Otto Neurath (and continued by Philipp Frank) on the left wing and then ask in what way, if any, this conception offended Rudolf Carnap’s declared ‘philosophical neutralism.’ Thereafter I will turn to Hans Reichenbach and consider by what means he removed philosophy of science from contact with the political domain altogether. The talk will conclude with a discussion of the similarities and differences between the political and the unpolitical versions of logical empiricist philosophy of science and some remarks on the lasting relevance of the contrasting conceptions.

Thomas Uebel is Reader in Philosophy at the University of Manchester, England. His historical research interests are the development of logical empiricism and 20th century philosophy of social science and he has published widely in the field. He has served on the HOPOS Steering Committee since 1998, from 2000 to 2002 as Chair.

## **Heather Douglas: “Robert Merton and the Ethos of Science”**

In this talk, I will trace the development of Robert Merton’s work from its inception in the 1930s through its establishment as a canonical source for the sociology of science in the 1960s. In following the development of Merton's work, I will show how his articulation for a program of study becomes increasingly isolationist in its view of how a scientific community functions, i.e., that science is an autonomous enterprise that pursues its own set of norms enforced by internal institutional mechanisms. The early work of Merton discusses in some detail the relationships between science and society in both the seventeenth century (his famous Ph.D. work, *Science, Technology and Society in 17th-Century England*) and in the twentieth century (his 1938 essay “Science and the Social Order”). However, by the time the “Mertonian Paradigm” (as Norman Storer has called it) was fully developed in 1957, Merton's work is steadfastly focused on the internal functioning of scientific communities. By then, Merton understood both the “ethos of science” and the driver of science (priority claims) as being largely internal affairs of the scientific community, functioning in isolation from society. This isolationism is also what allowed Merton to point to science as exemplifying democratic ideals that could be emulated by democracies in the face of the fascist threats of the time, as David Hollinger has pointed out. The development of Merton's views in the intellectual and political context of his day holds important lessons for understanding our current conception of scientific practice.

Heather Douglas is the Philip M. Phibbs Assistant Professor of Science and Ethics at the University of Puget Sound. Her research focuses on the relationships among science, values, and policy-making, and has been supported by the National Science Foundation. Her work has been published in *Philosophy of Science* and *American Philosophical Quarterly*, and is forthcoming in *Synthese* and *Foundations of Chemistry*. She received her Ph.D. from the History and Philosophy of Science Program at the University of Pittsburgh in 1998.

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