

PHIL 858
Science and Values
SYLLABUS

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OFFICE HOURS: Tu 1:45-3:45

Course description:

Traditionally philosophers of science have reconstructed science as being governed by a rational method aimed at arriving at objective knowledge. This image of science as supremely rational has been challenged by sociologists of science who have pointed to seemingly ineliminable social, non-cognitive factors that shape scientific inquiry. To what extent do the social conditions under which science is practiced influence the outcomes of scientific inquiry? Does the role of social factors in science conflict with the purported aim of science to uncover truths? Should moral and political concerns be allowed to influence science?

We will survey some of the main strands in this debate, which a few years ago erupted in what has quite dramatically been labeled “the science wars.” As the ‘backbone’ of the course we will read two recent books, by Helen Longino and Philip Kitcher, that try to overcome the dichotomy between the social and the normative cognitive dimensions of science and argue that social factors in fact play an important role in the production of scientific knowledge.

Course requirements: Two in-class presentations and one 15-20 page final paper.

Rough Schedule of Readings:

WEEK 1 (1/26)

Introduction

WEEK 2 (2/2)

The history:

Reichenbach; Neurath; Frank; Kitcher, ch. 1; Longino, ch.1;

WEEK 3 (2/9)

Rationalist accounts of science:

Popper

WEEK 4 (2/16)

Sociology of science (1):

Kitcher, ch.2; Longino, ch.2; Barnes and Bloor; Latour;

WEEK 5 (2/23)

Sociology of science (2):

Latour

WEEK 6 (3/2)

The Ideal of Objectivity:

Kitcher, ch. 3; Longino, ch. 3; Kitcher, *The Advancement of Science*, ch.7; Earman, "Underdetermination, Realism, and Reason"

WEEK 7 **no class 3/9**

WEEK 8 (3/16)

The World as we make it:

Kitcher, ch. 4; Dupré; Hacking, *The Social Construction of What?*, ch. 3

SPRING BREAK

WEEK 9 (3/30)

Maps, models, significance graphs:

Kitcher, chs. 5&6; Cartwright, *The Dappled World*, pp. 1-75

WEEK 10 (4/6)

Science and democracy (1):

Feyerabend, *Science in a Free Society*, part 2; Mill, *On Liberty*, ch.2; Kitcher chs. 7&8

WEEK 11 (4/13)

Science and democracy (2):

Kitcher chs. 9-14

WEEK 12 (4/20)

Socializing Knowledge (1):

Longino, chs.4-6; Cohen, Stewart. *Synthese* 73, no.1, 3-26 1987.

WEEK 13 (4/27)

Socializing Knowledge (2):

Longino, chs. 7-9

WEEK 14 (5/4)

Kitcher on Longino and Longino on Kitcher:

Paper in *Philosophy of Science*

WEEK 15 (5/11)

TBA