

COGR 225D, HIGR 241, PHIL 209D, SOCG 255D. Introduction to Science Studies, Part II

Charles Thorpe (Sociology) and Nancy Cartwright (Philosophy)

Time: Winter Quarter, 2016. Tuesdays 9.30-12.20

Location: HSS 3027

Topic: Realism and Anti-Realism in the Natural and Social Sciences

Assessment:

Final essay: 80%

Class discussion and presentation: 20%

Essay assignment:

Write one essay: 15 pages (double-spaced). Worth 80% of grade.

Your paper should be an analysis and critique of the articles and chapters set for the course, addressing one or more of the weekly topic areas.

You may include further reading, but the focus should be the literature set for the course.

Due by Wednesday March 16 at 12 noon.

Turn in two copies of your paper: one to be emailed to Nancy Cartwright (ncartwright@ucsd.edu or nancy.cartwright@durham.ac.uk – both addresses end up in the same box) and one paper copy to Charlie Thorpe's mailbox in Sociology.

Note that offices close at 12 noon for lunch.

An incomplete (i.e. extension) will only be granted if the request is made in advance of the paper due date, and if there are compelling reasons.

Attendance policy.

Attendance at seminars is mandatory.

If you miss more than two seminars during the term, without prior permission or valid reason (medical, or family emergency) you may receive a failing grade for the course.

Class discussion and Presentations

You are expected to read all the texts listed under the topic for each week.

A group of students will lead each session (except for Week 1). They will:

- a. Prepare a set of questions before the session and distribute it at the beginning of class
- .
- b. Present short reviews in class and lead discussion

Presentations and participation in class discussion will be worth 20% of the final grade.

Weekly Topics

- 1) What is scientific realism and what good is it? An overview

Stanford Encyclopedia of Philosophy article on scientific realism

<http://plato.stanford.edu/entries/scientific-realism/>

Stathis Psillos, 1999, *Scientific Realism: How Science Tracks Truth*, Introduction.

https://books.google.com/books?id=5aSGAgAAQBAJ&printsec=frontcover&dq=psillos+scientific+realism&hl=en&sa=X&ved=0ahUKEwjmlN3qw_3JAhUH2WMKHQLbBHwQ6AEIHTAA#v=onepage&q&f=false

John Bellamy Foster, Brett Clark and Richard York, *Critique of Intelligent Design: Materialism vs. Creationism from Antiquity to the Present* (2008), Introduction.

Please read the above in preparation for the first week's seminar.

Hasok Chang, Cambridge Inaugural Lecture: "Scientific Pluralism and the Mission of History and Philosophy of Science"

<https://www.youtube.com/watch?v=zGUsf9qYw8>

We will view this lecture in class.

- 2) Marx's materialism as realism

V. I. Lenin, "Materialism and Empirio-Criticism."

Recommended:

Helena Sheehan, *Marxism and the Philosophy of Science*, Chapter 1 "The Founders," and pp. 98-102 of Chapter 2 "The New Generation."

- 3) Critical realism and Marxism

Roy Bhaskar and Tony Lawson, "Introduction: Basic Texts and Developments"

Roy Bhaskar, "Philosophy and Scientific Realism"

The above are chapters 1-2 of Margaret Archer et al., *Critical Realism: Essential Readings*

Steve Fleetwood, "What kind of theory is Marx's labour theory of value? A critical realist inquiry," In: Brown, A., Fleetwood, S. and Roberts, J., eds. (2001) *Critical Realism and Marxism*

Nancy Cartwright, "Nomological machines and the laws they produce" in NC, *The Dappled World* [For a more detailed piece see "Capacities" in NC, *Nature's Capacities & their Measurement*]

Recommended:

Ernst Mandel, "Marx's Labour Theory of Value,"
<https://www.marxists.org/archive/mandel/19xx/marx/ch04.htm>

4) Anti-realisms 1: Scientific theory as an organizing scheme

Pierre Duhem, Aim & Structure of Scientific Theory, Part 1, Ch II and Part 2, CH V,
https://books.google.com/books?id=5mVPK7QBdTkC&printsec=frontcover&dq=duhem+aim+and+structure+of+physical+theory&hl=en&sa=X&ved=0ahUKEwj_huKq-vrJAhVC_WMKHaCcDNIQ6AEIHDA#v=onepage&q=duhem%20aim%20and%20structure%20of%20physical%20theory&f=false

Alisa Bokulich, "Pluto and the 'Planet Problem': Folk Concepts and Natural Kinds in Philosophy"

5) Anti-realisms 2: the sociology of knowledge

Tim Lewens, "Realism and the Strong Programme" *British Journal of the Philosophy of Science* (September 2005) 56 (3): 559-577.

Derek Edwards, Malcolm Ashmore and Jonathan Potter, "Death and Furniture: Arguments against Relativism" In Mary Gergen and Kenneth J. Gergen, *Social Construction. A Reader*

Steve Woolgar, "Interests and Explanation in the Sociology of Science," *Social Studies of Science* (1981)

Recommended:

Steve Woolgar and Dorothy Pawluch, "Ontological Gerrymandering: the Anatomy of Social Problems Explanation," *Social problems* 32.3 (1985): 214-227

6) Anti-realisms 3: Platonism and instrumentalism

Friedman, M (1953), 'The Methodology of Positive Economics', part II. in *Essays in Positive Economics*, pp. 3-43

Menger, C (1963), *Problems of Economics and Sociology*, Book One, 35-94

7) Defense of scientific realism

Doppelt, Gerald. "Empirical success or explanatory success: What does current scientific realism need to explain?," *Philosophy of Science* 72.5 (2005): 1076-1087

Doppelt, Gerald. "Reconstructing Scientific Realism to Rebut the Pessimistic Meta-induction". *Philosophy of Science* 74.1 (2007): 96–118

8) The Problem of Evaluating Scientific Expertise

William Rehg, "Evaluating Complex Collaborative Expertise: the Case of Climate Change"

H. M. Collins and Rob Evans, "The Third Wave of Science Studies: Studies of Expertise and Experience" *Social Studies of Science* 32(2) (April 2002), 235-296

Julian Reiss, "Struggling over the Soul of Economics: Objectivity vs Expertise"
<http://www.jreiss.org/papers/Reiss%202014%20Struggling.pdf>

9) Realism and anti-Realism in feminism

Tony Lawson, "Feminism, Realism, and Universalism," *Feminist Economics* 5(2) (1999): 25-59.

Sandra Harding, "The Case for Strategic Realism: A Response to Lawson," *Feminist Economics* 5(3) (1999): 127-133.

Peter Fabienne, "Critical Realism, Feminist Epistemology, and the Emancipatory Potential of Science: A Comment on Lawson and Harding," *Feminist Economics* 9(1) (2003), 93-101.

Lisa Cosgrove, "Feminism, Postmodernism, and Psychological Research," *Hypatia: A Journal of Feminist Philosophy* 18(3) (August 2003), 85-112.

Recommended:

John Sanbonmatsu, "Postmodernism and the Corruption of the Critical Intelligentsia," in Gregory Smulewicz-Zucker and Michael J. Thompson eds, *Radical Intellectuals and the Subversion of Progressive Politics: The Betrayal of Politics* (Palgrave, 2015)

10) New neither-nor positions

Hasok Chang, *Is Water H2O?* Chapters to be decided

Ronald Giere, *Scientific Perspectivism*. Chapters to be decided

Rune Nyrup, "Perspectival realism: where's the perspective in that?" (from the author)