

Philosophy 232: Realism and Anti-Realism

Chris Smeenk & Sheldon Smith

Haines A24, Th 3:15-6:15

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Evaluation

Participation, short responses, and research paper due at the end of the quarter. Brief description of the paper topic and / or outline, along with a bibliography, by May 18. Short responses: brief comments on reading assignments, due weekly at 5:00 p.m. on Wednesday before class (full credit for posting six responses over the course of the quarter).

Course Website

The course website is at <http://sakai.ucla.edu>; assigned readings, supplementary readings, updated schedules, etc. will be posted there.

Topics

- Introductory Readings: What is Realism?
 1. Hellman, “Realist Principles,” *Philosophy of Science* 50 (1983): 227-249.
 2. Kukla, Chapter 1, “The Varieties of Realism.”
 3. Psillos, review article from BJPS special volume
- 19th Century Physics and Instrumentalism (1 week)
 - Main Reading
 1. Selections from Hertz, Pearson (?)
 2. Selections from Boltzmann and Maxwell
 3. de Regt (?), “Philosophy and the Kinetic Theory of Gases”
 4. Selections from Duhem, *Aim and Structure of Physical Theory*
 - Background Reading
 1. de Regt 2005
 2. Gardner, “Realism and Instrumentalism in 19th-Century Atomism,” *Philosophy of Science* 46 (1979): 1-34.
- Poincaré and Instrumentalism (1 week)
 - Main Reading
 1. Selections from Poincaré, *Science and Hypothesis*
 2. Selections from Duhem, *Aim and Structure of Physical Theory*
 3. Friedman, “Poincaré’s Conventionalism and the Logical Positivists”
 4. Hempel, “Theoretician’s Dilemma,” in *Aspects of Scientific Explanation*.
 - Background Reading

1. Psillos, Chapter 2, "Theories as Instruments?"
 2. Scheffler, *Anatomy of Inquiry*, §§15-21.
- Russell's *Analysis of Matter* and Structural Realism (1-2 weeks)
 - Main Reading
 1. Selections from *Analysis of Matter*.
 2. Selections from Carnap, Ramsey (?)
 3. Newman, "Mr. Russell's Causal Theory of Perception" *Mind* 37 (1928) 137-148.
 4. Demopoulos, W. and Friedman M. "Critical Notice: Bertrand Russell's *The Analysis of Matter*: Its historical context and contemporary interest", *Philosophy of Science* 52 (1985): 621-39.
 - Background Reading
 1. Psillos, Chapter 3, "Carnap's Neutralism."
 - Pessimism and Theory Change (1 week)
 - Main Reading
 1. Laudan, "A confutation of convergent realism" *Philosophy of Science* 48 (1981): 19-49.
 2. Psillos, *Scientific Realism*, Chapter 5, "Resisting the pessimistic induction".
 - Underdetermination (1 -2 weeks)
 - Main Reading
 1. Earman, "Underdetermination, Realism, and Reason," *Midwest Studies in Philosophy* 18 (1993): 19-38.
 2. Sklar, "Saving the Nuomena," in *The Philosophy of Science*, ed. by Papineau.
 3. Wilson, "The Observational Uniqueness of Some Theories," *Journal of Philosophy*, 77 (1980): 208-233.
 4. Stanford on unconceived alternatives (?)
 - Background Reading
 1. Laudan and Leplin, "Empirical equivalence and underdetermination," *Journal of Philosophy* 88 (1991): 449-472.
 2. Kukla, *Studies in Scientific Realism*, Chapters 5 & 6, "Realism and underdetermination I,II." (?)
 - Constructive Empiricism (2 weeks)
 - Main Reading
 1. Selections from Van Fraassen, *The Scientific Image* and *Laws and Symmetry*.
 2. Wilson, "What Can Theory Tell Us About Observation?," in *Images of Science*.
 3. Phil Studies symposium (Fine, Teller, and van Fraassen).
 - Background Reading

1. Psillos, Chapter 9, “Constructive empiricism Scrutinized.”
- Deflating the debate (1 week)
 - Main Reading
 1. Selections from Sklar, *Theory and Truth*
 2. Blackburn, “Realism: Deconstructing the Debate” (?)
 3. Stein, “Yes, but. . .Some skeptical Remarks on Realism and Anti-realism,” *Dialectica* 43 (1989): 47-65.
 4. Fine, “Unnatural attitudes: Realist and instrumentalist attachments to science” *Mind* 95 (1986): 149-179.
 - Structural Realism: Contemporary versions (1 week)
 - Main Reading
 1. Worrall, “Structural realism: The best of both worlds?” *Dialectica* 43 (1989): 99-124. Reprinted in Papineau, *Philosophy of Science*.
 2. Ladyman, “What is structural realism?” *Studies in History and Philosophy of Science* 29 (1998): 409-424.
 - Background Reading
 1. Psillos, *Scientific Realism*, Chapter 7, “Worrall’s structural realism.”
 2. Psillos, “Is structural realism possible?” *Philosophy of Science* 68 (2001): 3.