

A Seminar in HOPOS (History of Philosophy of Science)  
Led by Nancy CARTWRIGHT  
Winter 2018

In this seminar we shall look at central works that have shaped our contemporary thinking in philosophy of science, as well as some recent views growing out of them.

It should satisfy both *philosophy of science* and *history* requirements for Philosophy graduate students and be accessible, and hopefully of use, to Science Studies graduate students.

Many of the readings are taken from Theodore Schick's *From Positivism to Postmodernism* (TS) and Boyd, Gaspar, and Trout's *The Philosophy of Science* (BGT).

Students will be expected to do one presentation, with PowerPoint (for practice at this) and submit one tightly crafted 3000-word paper, on the same or a different topic.

Week 1, Jan 12

Science vs non-science: What – if anything – is the scientific method?

Nancy Cartwright will present her Eastern APA Lebowitz Prize lecture. To be followed by a discussion of (short!) classic pieces on the topic from TS: Ayer, Popper, Kuhn, Lakatos. [Please read these in advance]

Week 2, Jan 19

The theory/observation distinction, part 1

Carnap, Hesse, Hanson, Kuhn from TS

Week 3, Jan 26

The theory/observation distinction, part 2

Bridgman from BGT and Herbert Feigl's reply, 'Operationism and Scientific Method' [1945, *Psychological Review* (52(5)), 250], van Fraassen from TS [ch 34], Churchland pp 275&276 from TS, I Hacking 'Do we see through a microscope' [1981, *Pacific Phil. Qtrly*, 62(4)]

Week 4, Feb 2

Feminism in philosophy of science, part 1

Harding from TS, Keller from BGT, H Longino and R Doell, 'Body, Bias, and Behavior: A Comparative Analysis of Reasoning in Two Areas of Biological Science' [1983, *Signs: Journal of Women in Culture and Society*, 9(2), 206-227],

Week 5, Feb 9

Feminism in philosophy of science, part 2

E Fox Keller, *A Feeling for the Organism: The life and work of Barbara McClintock*, A Wylie & S Sismondo, 'Standpoint Theory, in Science' [2015, *International Encyclopaedia of the Social and Behavioral Sciences*, 324-30], L Schiebinger, 'The History and Philosophy of Women in Science: A Review Essay' [1987, *Signs: Journal of Women in Culture and Society* (12(2)), 305-332]

Alternative: D Haraway, 'Monkeys, aliens, and women: Love, science, and politics at the intersection of feminist theory and colonial discourse' [1989, *Women's Studies Internat'l Forum* 12(3), 295-312]

Week 6, Feb 16

Laws

N Cartwright & P Merluzzi, 'Are Laws of Nature Consistent with Contingency?' [2016, [https://www.dur.ac.uk/resources/chess/CHESSK4UWP\\_2016\\_06\\_CartwrightMerluzzi.pdf](https://www.dur.ac.uk/resources/chess/CHESSK4UWP_2016_06_CartwrightMerluzzi.pdf)],  
H Beebe, 'The Non-Governing Conception of Laws of Nature' [2000, *Philosophy and Phenomenological Research* 61(3), 571-94]

Week 7, Feb 23 Scientific inference, part 1  
Hempel, Popper, Duhem, Lipton from TS, Popper from Boyd

Week 8, 2 March Evidence in science  
P Achinstein, 'Concepts of Evidence', *Mind*, New Series, 87(345), 22-45, talk by Matt Mercuri

Week 9, March 8  
Realism, part 1: instrumentalism and pragmatism  
P Duhem, *Aim & Structure of Physical Theory* Part 1, Ch II and Part 2, CH V, H Chang, '???'

Week 10, Realism, part 2: constructive empiricism and structural realism  
Van Fraassen from BGT, J Worrall, 'Structural Realism: The Best of Both Worlds?' [1989, *Dialectica* (1-2), 99-124]