

Philosophy of Science Fall 2000

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HPS 2501/PHIL 2600
 CL G24

624-5878 – Office hours Tuesday 10-12 and by appointment

August 31	<i>An Experiment and its Consequences</i>	Klotz "The N-Ray Affair" <i>Scientific American</i>
September 7	<i>Confirmation, Refutation and Theory Choice</i>	Popper "The Problem of Induction" Goodman "The New Riddle of Induction" Earman and Salmon "The Confirmation of Scientific Hypotheses" parts I and II (from <i>Introduction to the Philosophy of Science</i> edited by Salmon <i>et. al.</i> , 1992)
September 14		Kuhn: Readings from <i>The Structure of Scientific Revolutions</i> and "Objectivity, Value Judgment, and Theory Choice"
September 21		Earman and Salmon "The Confirmation of Scientific Hypotheses" parts III and IV Salmon "Rationality and Objectivity in Science or Tom Kuhn Meets Tom Bayes"
September 28	<i>Underdetermination and Objectivity</i>	Duhem "Physical Theory and Experiment", <i>Aim and Structure of Physical Theory</i> Quine "Two Dogmas of Empiricism"
October 5		Woodward and Bogen "Saving the Phenomena"
October 12	<i>Realism</i>	Hempel "The Theoretician's Dilemma"
October 19		Van Fraassen "Arguments Concerning Scientific Realism"
October 26		Hacking "Experimentation and Scientific Realism" Fine "The Natural Ontological Attitude"
November 2		No Class – PSA Meeting in Vancouver
November 9	<i>Explanation</i>	Wesley Salmon "Explanation" (from <i>Introduction to the Philosophy of Science</i> edited by Salmon <i>et. al.</i> , 1992) Hempel "Laws and Their Role in Scientific Explanation"
November 16		Scriven "Explanations, Predictions, and Laws" Cartwright "The Truth Doesn't Explain Much"
November 23		Thanksgiving

November 30	Laws	Dretske "Laws of Nature" Mellor "Necessities and Universals in Natural Laws" Cartwright "Do the Laws of Physics State the Facts?"
December 7	<i>Is there more to science than reason and experience? N-rays revisited</i>	Ashmore "The Theatre of the Blind: Starring a Promethean Prankster, a Phoney Phenomenon, a Prism, a Pocket, and a Piece of Wood", <i>Social Studies of Science</i> Vol. 23 (2003) 67-106, and Nye "N-rays: An Episode in the History and Psychology of Science" <i>Historical Studies in the Physical Sciences</i> , Vol. 11 (1980) 125-56
December 14		In-class Final Exam

The readings will appear in the seminar box in CL 1017. You might want to look through *Introduction to the Philosophy of Science* edited by Salmon *et. al.*, 1992, and *Philosophy of Science The Central Issues*, edited by Curd and Cover 1998 from which a number of the readings are drawn.

You will be required to write 6 short essays (3 pages or so) on the readings every other week (beginning September 7). The class will be arbitrarily divided into two and ½ will write essays for each week. There is also an in-class Final Exam.