

# PHILOSOPHY OF SCIENCE CORE LIST

## Books

- Kuhn, Thomas (1962). *The Structure of Scientific Revolutions*. University of Chicago Press, Chicago, IL.
- Van Fraassen, Bas (1980). *The Scientific Image*. Clarendon Press, Oxford, UK. (excluding ch.6)
- Hempel, C. (1966). *The Philosophy of Natural Science*. Prentice Hall.

## Papers and Short Excerpts (C&C= Curd and Cover anthology: P=Papineau anthology: K=Klee anthology: B=Boyd, Gasper & Trout anthology))

### Methodology and epistemology of science

- Popper, K.R. "Science, Conjectures and Refutations", [C&C]
- Popper, K.R. *The Logic of Scientific Discovery* (selections), [B]
- Kuhn, "Logic of Discovery or Psychology of Research?" [C&C]
- Lakatos, "Science and Pseudoscience" [C&C]
- Feyerabend, P. "How to be a Good Empiricist", [C&C]
- Kuhn, "Objectivity, Value Judgment, and Theory Choice" [C&C]
- Salmon, "Tom Kuhn Meets Tom Bayes" [C&C], [P]
- Glymour, C. "Why I am not a Bayesian" [C&C], [P]
- Horwich, P. "Wittgensteinian Bayesianism", [C&C]
- Norton, J. "A Material Theory of Induction", at <http://www.pitt.edu/~jdnorton/papers/material.pdf>
- Kitcher, P. "The Division of Cognitive Labor", *Journal of Philosophy* LXXXVII (1990), 5-22.
- David Bloor, "The Strong Programme in the Sociology of Science" [K]
- Sandra Harding, "Feminist Science Criticism" [K]

### Theory and Observation

- Rosenberg, A. "The Rise of Logical Positivism", [K]
- Suppe, F. "The Positivist Model of Scientific Theories", [K]
- Hempel, Carl (1965). *Empiricist Criteria of Cognitive Significance*. Aspects of Scientific Explanation. Free Press. [C&C], [B]
- Maxwell, Grover (1962). *The Ontological Status of Theoretical Entities*. *Scientific Explanation, Space, and Time*. G. Maxwell and H. Feigl eds., University of Minnesota Press, Minneapolis, MN. [C&C]
- Duhem, Pierre (1954). *Physical Theory and Experiment*. *The Aim and Structure of Scientific Theory*. Princeton, University Press, Princeton, NJ. (excerpts only!) [C&C]
- Quine, W.V.O. (1953). *Two Dogmas of Empiricism*. *From a Logical Point of View*. Harvard University Press, Cambridge, MA. [C&C]
- Laudan, Larry (1990). *Demystifying Underdetermination*. *Scientific Theories*, C. Wade Savage, University of Minnesota Press, Minneapolis, MN. [[C&C]

### Realism/Anti-realism

- Laudan, Larry (1981). *A Confutation of Convergent Realism*. *Philosophical Topics*, vol. 13. [C&C], [P], [B]
- Boyd, Richard (1990). *Realism, Approximate Truth, and Philosophical Method*. *Scientific Theories*, C. Wade Savage, University of Minnesota Press, Minneapolis, MN. [P]
- Cartwright, Nancy (1994). *Fundamentalism vs. the Patchwork of Laws*. *Proceedings of the Aristotelian Society*, vol. 93/2. [P]
- Worrall, J. "Structural Realism: the Best of Both Worlds?", [P]

### Explanation and Reduction

- Nagel, E., "Issues in the Logic of Reductive Explanation", [C&C]
- Hempel, Carl, "Two Basic Types of Scientific Explanation", [C&C]
- Hempel, Carl "The Thesis of Structural Identity", [C&C]
- Kitcher, Philip (1981). Explanatory Unification. Philosophy of Science, vol. 48. [B]
- Cartwright, N. "The Reality of Causes in a World of Instrumental Laws", [B]
- Salmon, Wesley (1998). Causality and Explanation. Oxford University Press. (chs. 1,4,8,11)
- Oppenheim, Paul and Putnam, Hilary (1958). Unity of Science as a Working Hypothesis. Minnesota Studies in the Philosophy of Science: Volume II, H. Feigl, M. Scriven, and G. Maxwell, eds., University of Minnesota Press, Minneapolis, MN. [B]
- Fodor, Jerry (1974). Special Sciences, or the Disunity of Science as a Working Hypothesis. Synthese, vol. 28, Kluwer Academic Publishers. [B]
- Kitcher, Philip (1984). 1953 and All That: A Tale of Two Sciences. Philosophical Review, vol. 93.[C&C]