

Philosophy 955 and Sociology 915
Philosophy of (Social) Science
 Wednesday Evenings 7-9
 5193 Helen C. White Hall

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Introduction

Like all human activities, the many branches of social inquiry — anthropology, economics, geography, history, political science, psychology, and sociology — have many purposes and show a great diversity of practices and outcomes. A premise of this course is that central to their mission is a search for knowledge that permits explanation and prediction of their subject matter. Social inquiries share these goals with the natural sciences and, at least at an abstract level, they share some methods, too. As in the natural sciences, the results of observations or tests are the ultimate arbiter concerning which claims are to be believed. We reject the views of those who maintain that there is a radical chasm separating the study of nature from the study of society and of those who maintain that the notion of truth is a Eurocentric or androcentric chimera.

Yet we do not deny that the various branches of social inquiry differ enormously among themselves, and that there are many dissimilarities between particular natural sciences and particular social sciences. Furthermore, we both believe that there is no good way to address even the most general methodological questions concerning the social sciences without studying the details of the goals, problems, procedures, and results of these disciplines. We hold that systematic empirical investigation is central not only to the natural and social sciences, but to the study of methodology as well, which is, in fact, a sort of social inquiry itself. Philosophers of science are, we believe, weird anthropologists. Like anthropologists, they study human practices. What makes them weird are the questions they ask and the questions they do not ask. Their interests in features of particular disciplines are guided by ultimately normative questions about how such disciplines can best achieve their cognitive ends.

So Wright and Hausman are not such an odd couple as they may appear (or so they hope). Sociologists cannot avoid reflecting on their methods, and philosophers of science cannot avoid questions about human practices. This course aims to bring together their interests and expertise to address methodological questions as they arise in the research of social researchers here at the University of Wisconsin. In a world without constraints of time and resources, each of you would begin this course with a mastery of literature in several fields of social inquiry as well as in contemporary philosophy of science. You could then relate the details of the research of one of our colleagues to detailed questions of method and substance from the relevant literature. But in a world without constraints of time and resources, you'd all already know more than we could teach you anyway.

In this, the only world we've got, your backgrounds are varied and full of gaps. Few of you know much philosophy of science or have deep and broad knowledge of the social sciences. So we will have to employ the quintessential human technique of making do with what we've got.

Structure of the Course

The centerpiece of this course is a series of videotaped philosophy of science interviews which you will conduct with various social science researchers on campus. Here is how it will work: At the first class session we will distribute a list of faculty members in various departments (sociology, economics, political science, history) who have agreed to be guinea pigs in our seminar, along with a sample of their writings. From this list you will choose a scholar whom you wish to interview for your term project. In the second seminar session students will rank order their top three choices. On the basis of these preferences we will then form research teams consisting of a minimum of three students, at least one of whom is a philosophy student and one a social science student. During the next

couple of weeks, these teams need to meet with their interview subject to get a more extended reading list and make arrangements for the interview later in the semester. On the basis of these readings, the team will then construct an interview dealing with a range of philosophy of science issues. The specific issues for the interview, of course, will depend upon the nature of the work of the scholar being studied. By around the 10th week of the semester these interviews should be carried out and videotaped (you will get some training in videography). In the last several weeks of the semester these videotapes will be presented to the seminar. The week before you present you will assign one reading of the interviewee for everyone to read. At the session in which your video is played you will give a general introduction and then some kind of commentary after the video is shown as a way of kicking off the discussion. At the last session of the seminar you will then hand in a term paper, which can be either individually or collaboratively written, on the work you have been studying.

To prepare you for these interviews, the first ten weeks or so of the semester will be devoted to a broad survey of problems in philosophy of science of particular relevance to social research.

Requirements and schedule of your work

Your work in this seminar will fall into roughly five phases:

1. (Weeks 1-3) You need to choose whose work you want to study and to form into groups of four who will work together in planning and carrying out the interviews. Representative works by all of those who volunteered to be interviewed will be made available.
2. (Weeks 1-9) You will need to learn a good deal about the work of the person you will be interviewing and to fill in relevant background in philosophy of science.
3. (weeks 9 - 12) Preparation and execution of methodological/philosophical interviews. These should last between 45 minutes and one hour and require a good understanding of the work of the person to be interviewed.
4. (weeks 13 - 15) Study of the work of the other researchers interviewed and viewing of videotapes of the methodological interviews. Each group will choose a work by the person they interview to be read by the other members of the seminar and should take responsibility for discussing the methodological (and substantive) issues that arise in the interviews. The 13th seminar session will be rescheduled to avoid meeting the night before Thanksgiving.
5. (weeks 14-15) Preparation of seminar papers. These may be either collective or individual.

Your grade in the seminar will depend (in descending order of importance) on the seminar paper, on the quality of the interview, and on your participation in the seminar. Seminar papers are due at the last session of the seminar for everyone except those presenting during last session. Their papers will be due by noon on the following Monday, December 14. Late papers may not receive detailed comments. Both Wright and Hausman plan to grade every paper.

Organization of the seminar sessions

The sessions of the seminar itself are organized to help you with your tasks. After an introductory session in which we lay out our perspectives on the methodology of the social sciences, we will devote three weeks to issues concerning the relations between individuals, and the relations, systems and structures within which individuals are embedded. In particular the topics of the three sessions will be methodological individualism, rational choice models, and the relations (or dialectic) between structure and agency. These issues arise in almost all work in the social sciences and will almost certainly be important in appreciating and appraising the specific research of the person you will be interviewing.

Weeks 5-6 will be the most abstractly philosophical part of the course. (We didn't begin with this material, because we didn't want to scare you off.) Week 5 will address the great bugbear of the 20th century, "positivism" (which everybody hates but nobody can stop talking about). Since so much methodological thinking, both by philosophers and by social investigators themselves, is informed by positivism or is a reaction against positivism, this is a crucial topic. Week 6 takes us from the frying pan into the fire of post-modernist and post-structuralist critiques not only of positivism but of the pretensions of epistemology itself.

Weeks 7 - 11 will fuse the abstract philosophical discussions with more applied issues. Week 7 begins with another inadequacy of logical positivism -- the distinction between analytic and synthetic claims and develops more concretely the difficulties of concept formation. Week 8 addresses the legitimacy of abstract and idealizing theory. Week 9 returns to another general topic in the philosophy of science -- causal explanation. Hausman has a pet theory here that he believes is helpful in understanding the peculiarities of social inquiries. Week 10 will be devoted to the issue of assessing the importance of separate explanatory factors and will bring together Hausman's account of causal explanation with a theory of causal "primacy" Wright has championed. (Will fur fly? Tune in for further reports.) Week 11 then turns to problems of testing.

During weeks 12-15 we plan on viewing videotapes of the interviews.

Detailed schedule and reading assignments:

(Note: We expect that members of the seminar will usually complete the core readings and that everyone will always have read the selections marked with an asterisk, no matter how pressed with other obligations. The optional readings are included to provide some direction for those who would like to do more. No one is expected to read any of the optional works.)

1. Wednesday, September 2: Introduction

After spelling out the conception and structure of the course and saying a little bit about the people who have agreed to be interviewed, Hausman and Wright will take the opportunity to sketch their basic perspectives.

Core reading: none

Optional reading: (works that have strongly influenced Wright or Hausman or works that lay out Wright's or Hausman's position)

Hausman:

Donald Davidson, "Actions, Reasons and Causes." *Journal of Philosophy* 60 (1963): 685-700.

Galileo Galilei, *Dialogue Concerning the Two Chief World Systems*. Berkeley: University of California Press, 1967, Dialogues 1 and 2.

David Hume, *A Inquiry Concerning Human Understanding*

Thomas Kuhn, *The Structure of Scientific Revolutions*. 2nd ed. Chicago: University of Chicago Press, 1970.

Karl Marx, "Alienated Labor" from the 1844 manuscripts, Part 1 of *The German Ideology*, and "Preface to the Critique of Political Economy"

J. S. Mill, *A System of Logic*, esp. Books VI and III.

W.V.O. Quine, "Two Dogmas of Empiricism," pp. 20-46 of *From a Logical Point of View*. Cambridge, MA: Harvard University Press, 1953.

For a statement Hausman's perspective, see his *The Inexact and Separate Science of Economics* (Cambridge: Cambridge University Press, 1992), especially the appendix.

Wright:

- Arthur Stinchcombe, *Constructing Social Theories* (Harcourt, Brace & World, Inc., 1968)
 Roy Bhaskar, *A Realist Theory Of Science* (Harvester Press, 1978) and *The Possibility Of Naturalism* (Harvester Press, 1979)
 Alan Garfinkle, *Forms Of Explanation: Rethinking Questions In Social Theory* (Yale University Press, 1981)
 G.A. Cohen, *Karl Marx's Theory Of History: A Defense* (Princeton University Press, 1978)
 Nicos Poulantzas, *Political Power And Social Theory* (Verso, 1973)

For statements of Wright's methodological/philosophical approach, see: Erik Olin Wright, *Class Crisis and The State* (Verso, 1978), chapter 1; *Classes* (Verso, 1985), chapters 1 and 2; *The Debate On Classes* (Verso, 1989), chapter 2; *Reconstructing Marxism* (with Elliott Sober and Andrew Levine); *Interrogating Inequality* (Verso, 1994), Part III

2. Wednesday, September 9: Methodological individualism

The works of Hayek and of Popper at the time of World War II initiated a controversy concerning methodological individualism, although discussions about individualism versus holism go back to the 19th century and are particularly prominent in the works of Durkheim. Both Popper and Hayek saw the enemies of liberalism -- especially fascism and communism -- as committing a methodological mistake, as offering theories in which collective entities possess causal efficacy unmediated by the actions of individuals. This is alleged to be a methodological mistake because entities such as societies do not exist (Margaret Thatcher's view) or, more moderately, cannot act independently of the people who constitute them. Fully satisfactory explanations in the social sciences must be entirely in individualistic terms. Although individualism is supposed to be a methodological doctrine, it has been intertwined with political struggles and with ontological disputes (that is disputes about what exists or is real).

Core reading

- Jon Elster, *Making Sense of Marx* (Cambridge: Cambridge University Press, 1985), pp. 3-27.
 Andrew Levine, Elliott Sober, and Erik Wright. "Marxism and Methodological Individualism," in *Reconstructing Marxism*, pp. 107-127
 Erik Olin Wright, *Class Counts*, pp. 373-405.
 Julius Sensat, "Methodological Individualism and Marxism," *Economics and Philosophy*, 4 (1988): 189-220.

Optional reading:

- Emile Durkheim, *Rules of Sociological Method*. 8th ed. tr. Sarah A. Solovay and John H. Mueller and edited by George E.G. Catlin. New York: Free Press, 1964. Many of the classic contributions to the modern debate are collected in J. O'Neill. *Modes of Individualism and Collectivism*. London: Heineman, 1973. David Ruben's, *The Metaphysics of the Social World* (London: Routledge, 1985) is an extended argument for ontological holism by an analytical philosopher. For a brief recent view, see Harold Kincaid, *Individualism and the Unity of Science* (New York: Rowman and Littlefield, 1997), pp. 31-48.

3. Wednesday, September 16: Rational Choice Models

Although (as Week 2 demonstrates) there is disagreement about how large a part explanation or prediction of individual behavior should play in the social sciences, almost everyone agrees that it should play some part. In everyday life, when we explain a person's actions, we cite the constraints, the agent's wants or goals, and the agent's beliefs. For example, in explaining why Clinton refused a particular request by Kenneth Starr, we would consider what alternatives were open to Clinton and offer hypotheses about what Clinton believed and wanted. Rational choice theory is an extension of this strategy. The influence of wants, goals, aversions and so forth is summarized in the notion of a preference ranking, which is assumed to satisfy certain rationality or consistency conditions. Choice is then rational if it is determined by preferences and beliefs. Phenomena apart from individual choices are explained as the consequences of individual choices. This is the explanatory strategy of economists, and in recent years it has made some headway in other disciplines, such as sociology and political science.

Rational choice theory is controversial in a number of regards: 1. Is its construal of rationality acceptable? 2. Are rational choice explanations too individualistic or not individualistic enough? 3. Do rational choice models depict individuals as selfish? 4. Are rational choice explanations empty or deceptive? Do they emphasize the wrong things and hide the influence of social factors?

Core readings:

- *Dan Hausman and Michael McPherson, *Economic Analysis and Moral Philosophy* (Cambridge: Cambridge University Press, 1996), ch. 3 "Rationality" (pp. 27-37).
- *James Coleman, *Foundations of Social Theory*. Cambridge, MA:Harvard University Press, 1990, pp. 1-23.
- George Homans, "Bringing Men Back In" in Alan Ryan's *Philosophy of Social Explanation*. Oxford: Oxford University Press, 1973, pp. 50-64.
- Jeffrey Friedman, "Economic Approaches to Politics," *Critical Review* 9(1-2) (1995): pp. 1-24.

Optional Readings:

- Donald Green and Ian Shapiro, "Pathologies Revisited: Reflections on our Critics," *Critical Review* 9(1-2) (1995): pp. 235-76.
- Donald Green and Ian Shapiro, *Pathologies of Rational Choice Theory: A Critique of Applications in Political Science*. New Haven: Yale University Press, 1994.
- Debra Satz and John Ferejohn, "Unification, Universalism, and Rational Choice Theory," *Critical Review* 9(1-2) (1995): pp. 71-84.
- Debra Satz and John Ferejohn, "Rational Choice and Social Theory," *Journal of Philosophy* 91 (1994): 71-87.
- Dan Hausman, "Rational Choice and Social Theory: A Comment," *Journal of Philosophy* 92(1995): 473-90.
- Martin Hollis and Robert Sugden, "Rationality in Action," *Mind* 102(1993): 1-35.

4. Wednesday, September 23: Structure and agency

Discussions concerning methodological individualism and concerning rational choice models concern the relationship between structure and agency. Those who see individual innovation and choice as relatively unimportant to the reproduction and dynamics of societies will not be methodological individualists and will find that rational choice theories hide what really matters. But the general issue of the importance, nature, and role of agency and of the character and weight of social structure extends more widely.

Core readings

- *Marx: Preface to a Critique of Political Economy, Theses on Feuerbach
- *excerpts from J.S. Mill, On Liberty
- Anthony Giddens, *The Constitution of Society* (University of California Press, 1984), chapter 1, "Elements of the Theory of Structuration", pp. 1-34, especially pp.5-38
- Margaret Archer, "Human Agency and Social Structure: A Critique of Giddens", in Jon Clark, Celia Modgil and Sohan Modgil (eds) *Anthony Giddens: Consensus and Controversy* (London: The Falmer Press, 1990).
- *Mustafa Emirbayer and Ann Mische, "What is Agency?" *American Journal of Sociology* 103:4, January 1998, pp.962-1023.
- William H Sewell, Jr. "A Theory of Structure: Duality, Agency and Transformation", *American Journal of Sociology*, 89:1 (July 1992): 1-29

Optional:

- Perry Anderson, "Agency", chapter 2, in *Arguments within English Marxism* (Verso, 1980), esp pp.16-25
- Hans Joas, *On the Creativity of Action* (Chicago: University of Chicago Press, 1996), Introduction and Chapter 3, "Situation, Corporeality, Sociality: The fundamentals of a theory of the creativity of action", pp. 1-6, 145-195.

5. Wednesday, September 30: Logical positivism

Auguste Comte coined the word, "positivism" as a name for his optimistic philosophy that looked forward to a replacement of superstition by science and to the rational organization of society. Logical positivism shared Comte's enthusiasm for the sciences, but it kept its distance from any substantive sociology, and it more strongly emphasized empiricism. The movement adopted the name "logical positivism" because it was also inspired by developments in 20th century logic and mathematics. The goal was to develop abstract, content-independent characterizations of features of science such as theory, explanation, or confirmation and to contribute to the conceptual clarification and eventual formalization of the sciences. Although the movement ran into increasingly serious philosophical difficulties beginning in the 1930s, a "positivistic attitude" became increasingly influential among scientists, including social scientists until the 1960s, when more popular critiques were written and word of the difficulties with positivism began to spread. Although Karl Popper considered himself a critic of the logical positivists and does indeed have some deep disagreements with them, there are many affinities between his views and those of the positivists, and we shall have a bit to say about them, too.

Core readings:

- *Dan Hausman, *The Inexact and Separate Science of Economics*. Cambridge: Cambridge University Press, 1992, pp. 281-316.
- *Karl Popper, "Conjectures and Refutations" in *Conjectures and Refutations; The Growth of Scientific Knowledge*. 3rd. ed. London: Routledge & Kegan-Paul, 1969.
- Carl Hempel, *Philosophy of Natural Science* (Prentice-Hall, 1966), ch. 1-5.
- Ray Pawson, *A Measure for Measures* (London: Routledge, 1989), ch.5.

Alternative exposition of Bashkar:

- Andrew Collier, *Critical Realism: an introduction to Roy Bhaskar's Philosophy* (London: Verso, 1994), pp.3-63

Optional readings:

The decisive English-language formulation of logical positivism is A.J. Ayer's 1936 *Language, Truth and Logic*. See also O. Hanfling, *Logical Positivism*. Oxford: Basil Blackwell, 1981. See also the collections, *Logical Positivism* (edited by A.J. Ayer). New York: Free Press, 1959 and Hanfling's *Essential Readings in Logical Positivism*, also Oxford, Blackwell, 1981. The introduction to Frederick Suppe's, *The Structure of Scientific Theories*. 2nd. ed. Urbana: University of Illinois Press, 1977 provides a simplified sketch of positivism and of reactions to it. The most important critiques of positivism are W.V.O. Quine, "Two Dogmas of Empiricism," pp. 20-46 of *From a Logical Point of View*. Cambridge, MA: Harvard University Press, 1953, Thomas Kuhn's, *The Structure of Scientific Revolutions*. 2nd ed. Chicago: University of Chicago Press, 1970, Imre Lakatos, "Falsification and the Methodology of Scientific Research Programmes," pp. 91-196 of Lakatos and Musgrave, *Criticism and the Growth of Knowledge*. Cambridge: Cambridge University Press, 1970, and Paul Feyerabend, "Problems of Empiricism" in R. Coldney, ed. *Beyond the Edge of Certainty* (Prentice-Hall, 1965) and "Problems of Empiricism, Part II" in R. Coldney, ed. *The Nature and Function of Scientific Theories*. Pittsburgh: University of Pittsburgh Press, 1970, pp. 275-353.

6. Wednesday, October 7: Post-modernist and other relativist views of science

Currently there are a variety of different intellectual currents that in different ways challenge the pretensions of "science." Some sociologists and historians of science maintain that evidence and rational argument has little or no role in science. Some social constructivists argue that the sciences construct the world they purport to describe and that a change in science is ipso facto a change in the world. Deconstructionist views of science are extensions of a perspective in literary theory that emphasizes the role of the reader in the construction of the literary text. If one

assimilates not only the words of scientific theories but their objects of science to texts, then deconstructions challenge the reality of the objects of science or argue that that reality results from the collaboration between the author and reader of scientific texts. Post-modernists challenge the privileged status of cognitive genre. In place of arbitrarily and unjustifiably privileged cognitive criteria, we must reply on performative criteria, so that the success (or "truth") of a discourse is simply the degree to which it achieves agreement and support from members of the relevant community of experts. Rather than aiming a consensus, inquiry should aim at maximizing variety so as to keep science open to new ideas. Some leftists and some feminists discern a natural alliance between deconstructionism or postmodernism and a political challenge to the status quo. According to all of these positions, the view that science aims at discovering the truth about an independently existing world is hopelessly naive and politically repressive.

Core readings:

*Jean Bricmont and Alan Sokal, *Impostures Intellectuelles*, ch.3.

The following three listings can be found on the internet at <http://www.physics.nyu.edu/faculty/sokal/index.html>:

Alan Sokal "A Physicist Experiments with Cultural Studies" and "Transgressing the Boundaries: An Afterword."

Bruce Robbins, "Anatomy of a Hoax" with Sokal's reply.

Stanley Aronowitz, "Alan Sokal's `Transgression'" with Sokal's reply.

Francois Lyotard, *The Postmodern Condition*. Manchester University Press, 1984, esp. sections 5, 7, 11, 13.

Steven Shapin and Simon Schaffer, *Leviathan and the Air-pump: Hobbes, Boyle and the Experimental Life*. Princeton University Press, 1985, pp. 341-44.

Optional readings:

Stanley Fish, "Professor Sokal's Bad Joke," :<http://weber.u.washington.edu/~jwalsh/sokal/articles/fish-oped.html>

Alan Sokal's response to Fish is at: <http://weber.u.washington.edu/~jwalsh/sokal/articles/sk12fish.html>

Steve Woolgar, *Science: The Very Idea*. London: Tavistock, 1988, pp. 53-69

Barbara Epstein, "Postmodernism and the Left", by Barbara Epstein (New Politics, Winter 1997) at:

<http://www.wilpaterson.edu/~newpol/issue22/epstei22.htm>

Richard Rorty, *Philosophy and the Mirror of Nature*, (Princeton University Press, 1980), ch. VII, pp. 315-56.

7. Wednesday, October 14: Concept formation

One of the inadequacies of logical positivism is that they regarded the conceptual side of science as a matter either of formal logic or of purely analytical definition. Apart from insisting on empiricist constraints on what terms are scientifically legitimate, the positivists had little interest in the conceptual explorations that characterize science. One of the decisive critiques of positivism (developed by Morton White, W.V.O. Quine, and then in a slightly different way by Hilary Putnam) was that one cannot separate the sentences in a science into analytical claims whose truth depends on definitions and logic and is independent of experience and synthetic claims that are confirmed or disconfirmed by experience. Although an abstract philosophical issue, this matter of concept formation also arises pointedly in day-to-day practice, and Erik Wright's chapter shows how he had to grapple with these issues in his work on class.

Core reading:

*Carl Hempel, *Philosophy of Natural Science* (Prentice-Hall, 1966), ch. 7, pp. 85-100.

*Erik Wright, "The Biography of a Concept," Chapter 2 in *Classes* (Verso, 1985) pp. 19-63.

Ray Pawson, *A Measure for Measures* (Routledge, 1989), pp. 225-254

Max Weber, "Objectivity and Understanding in Economics," in D. Hausman, ed. *The Philosophy of Economics: An Anthology*. Cambridge: Cambridge University Press, 1994, pp. 69-82.

Optional Readings:

An illustration: three different strategies for defining the concept "market":

Richard Swedberg, "Markets as Social Structures," *Handbook of Economic Sociology* (Princeton University Press, 1994) pp.255-82

Wolfgang Streeck and Philippe Schmitter, "Community, market, state -- and associations?: the prospective contribution of interest governance to social order," in Streeck & Schmitter (eds) *Private Interest Government* (Sage, 1985), pp. 1-29

Polanyi, K., 1957 (1944): *The Great Transformation: The Political and Economic Origins of Our Time*, Boston: Beacon Press, esp. Part Two, "Rise and Fall of Market Economy, I: Satanic Mill", pp. 33-134

Hilary Putnam. "The Analytic and the Synthetic," pp. 358-97, esp. pp. 368-89 of Herbert Feigl and Grover Maxwell, eds. 1962. *Minnesota Studies in the Philosophy of Science*, vol. 3. Minneapolis: University of Minnesota Press.

8. Wednesday, October 21: Theoretical models and the problem of abstraction and idealization

Social scientific theories often seem remote from the reality of every-day life. Complexities are ignored, oversimplified falsehoods are affirmed, and theories seem to live in worlds of their own, whose relevance to the real world seems questionable. One of the most frequently heard objections to a specific explanations in social science is "but things are much more complicated than that!" Many sociologists become especially skeptical when theoretical arguments are formalized in mathematical terms. The question, then, is how can such gross "simplifications" be justified? Is there a distinction between justified and unjustified simplifications? Is the central issue here simply one of pragmatics — the limitations of the human mind to grasp the full complexity of things, or is there a real principle at work that guides the simplifications inherent in abstractions?

Core readings:

*Steven Rappaport, *Models and Reality in Economics*. Cheltenham: Edward Elgar, 1998, pp. 102-110.

*Max Weber, "Objectivity and Understanding in Economics," in D. Hausman, ed. *The Philosophy of Economics: An Anthology*. Cambridge: Cambridge University Press, 1994, pp. 69-82.

*Milton Friedman, "The Methodology of Positive Economics," pp. 3-43 of *Essays in Positive Economics* Chicago: University of Chicago Press, 1953; rpt. in D. Hausman, ed. *The Philosophy of Economics: An Anthology*. Cambridge: Cambridge University Press, 1994, pp. 180-213.

Optional readings:

D. Hausman, *The Inexact and Separate Science of Economics*. Cambridge University Press, 1992, ch. 12.

E. McMullin, "Galilean Idealization," *Studies in the History and Philosophy of Science* 16 (1985).

Leszek Nowak, *The Structure of Idealization: Towards a Systematic Interpretation of the Maxian Idea of Science*. Dordrecht: Reidel, 1980.

Nancy Cartwright, *Nature's Capacities and their Measurement*. Oxford: Clarendon Press, 1989, ch. 5.

9. Wednesday, October 28: Causal explanation

Although it is questionable whether all scientific explanation is causal explanation, most of it is. Because of confusions and qualms about the notion of causation, such accounts have been slow to appear. Stimulated in large part by the work of James Woodward, Hausman has been developing an account of causal explanation that emphasizes the affinities between explanation and diagnosis and the relevance of explanation to our practical interests in intervening and controlling phenomena.

Core reading:

*Peter Lipton, "Contrastive Explanation," in D. Ruben, ed. *Explanation*. Oxford: Oxford University Press, 1993, pp. 207-227.

*D. Hausman, "Outline of a Model of Causal Explanation," (typescript)

James Woodward, "Explanation and Invariance in the Special Sciences" (typescript)

Optional Reading:

Arthur Garfinkel, *Forms of Explanation*. New Haven: Yale University Press, 1981.

D. Ruben, ed. *Explanation*. Oxford: Oxford University Press, 1993 (especially the selections by Hempel, Salmon, Lewis, and van Fraassen. Richard Miller, *Fact and Method*). Ithaca: Cornell University Press, 1987, Part I.

10. Wednesday, November 4: Causal priority

In both nature and society, events usually depend on a multiplicity of causal factors. If the sun had exploded in 1916, the Bolshevik revolution would never have happened. But the continued existence of the sun does little to explain the revolution. Among factors that are more strongly explanatory, some seem stronger than others, and some seem to explain the revolution in a qualitatively different way than others. How can we discriminate among causal factors such as the assassination of Archduke Ferdinand in Serbia in 1914, the terrible human costs in Russia of the first world war, the autocratic structure of the Russian government, and the return of Lenin? This is both a practical problem for historians and social theorists and a theoretical problem. In particular, how can a theory of causal explanation permit one to distinguish among kinds and strengths of causes?

Core reading:

*Andrew Levine, Elliott Sober and Erik Wright, "Causal Asymmetries," chapter 7 in *Reconstructing Marxism*, pp. 129-175

Optional Reading:

H.L.A. Hart and A. Honore'. 1985. *Causation in the Law*. 2nd. ed. Oxford: Clarendon Press.

11. Wednesday, November 11: Testing

While not minimizing the difficulties of testing or the resources for clinging to theories regardless of the findings of experiment and observation, we believe that the results of testing should be the final arbiter concerning what we should believe. Within such a perspective, testing is obviously one of the central topics in the methodology of the social sciences. It is also an immense topic ranging from complicated details concerning statistical and experimental techniques to general epistemological queries concerning the very notion of evidence. So we cannot go very deeply into the subject in a single class.

Core readings:

*D. Hausman, *The Inexact and Separate Science of Economics*, pp. 302-314.

*Ray Pawson "Against Variable Analysis," and chapter 9, "Choosing class concepts: from indicator selection to adjudicating theories," In *A Measure for Measures*, pp. 35-73 and 255-286.

Carl Hempel, *Philosophy of the Natural Sciences*, ch. 4, pp. 33-46.

Karl Popper, "Conjectures and Refutations"

Optional readings:

Erik Wright, *Classes*, chapter 5 "Empirically adjudicating contending class definitions" pp.136-191 [This is the longer empirical investigation on which Pawson bases part of his chapter)

Peter Asquith, ed. *The Concept of Evidence*. Oxford: Oxford University Press, 1983, especially the essays by Hempel, Braithwaite, Salmon and Glymour. Ellery Eells, *Rational Choice and Causality*). Cambridge: Cambridge University Press, 1983, Ch. 1.

Seminar meetings 12 - 15 (November 18, December 2, 9): discussion of videotaped interviews.