

The Political Sociology of Science
Sociology/ Rural Sociology 927
Spring 2008

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Office Hours: By appointment
Class meeting: Mondays, 2:25-5:25

Broadly speaking, the arc of the sociology of science has gone from the functionalism of Robert K. Merton to a set of micro-studies and other post-structuralist inflected scholarship interested first and foremost with epistemological questions. Recent years have seen the fragmentation of the field and the emergence of an array of creative approaches to science in the (post) modern world. This course focuses on one developing cluster of work that uses the tools of political and organizational sociology to understand recent developments in technoscience. More than some recent work on science and technology, this scholarship contends with classical sociological problems of economic and political power and social inequality, seeking to understand how and why science works better for some people than for others. In this seminar, we will spend the bulk of the semester reading and discussing this scholarship.

Requirements

Initiating class discussion once (10% of course grade) (This requirement is negotiable. We might collectively decide to simply have whoever has something to say start discussion or decide that I should initiate discussion every week.)

Weekly comment papers--2-3 double-spaced typed pages (30% of course grade)

1 essay--15-20 double spaced typed pages (60% of course grade)

Class Discussion: This is a seminar course. I will not lecture during the semester; I will, however, moderate discussion and contribute my interpretations and views of the texts we read. Where necessary and appropriate, I will, of course, provide background or context for readings. Generally, however, my sense is that graduate students learn more from talking through arguments—looking for virtues as well as difficulties in texts—than by being lectured at. Each week, students should come to class prepared to make at least one comment about the reading. With luck, this will be an observation that will promote vigorous debate. Unless we decide otherwise collectively, at the beginning of the semester, each student will sign up for one (or more) session(s) for which s/he agrees to get the discussion going.

Readings: The books listed on the course schedule and marked with an asterisk are available for purchase at Rainbow Bookstore Cooperative (426 W. Gilman, 257-6050). Virtually all of the required books are on reserve at Helen C. White. I will place the shorter readings on electronic reserve, and they will be available as a packet for purchase at the Social Science Copy Center in the Social Sciences Building (room 6120; 262-5396).

Comment Papers: These papers are opportunities to probe course reading. Each paper should show that you are seriously grappling with the material; however, how you proceed is entirely up to you. You might compare readings from a given week with a reading or readings from an earlier week. You might consider how an argument made in a course reading could be applied to your own work. You might assess the reading, suggesting strengths and weaknesses in argument and evidence.

You must write *nine* of these papers over the course of the semester. Papers should be submitted to the class list (rursoc927-1-s08@lists.wisc.edu). In order for class participants to read each others comments prior to class, it would be best if these were submitted by Sunday evening.

Longer Essay-As with the comment papers, how you proceed on this assignment is up to you. An original research paper will be appropriate for some of you. Others might prefer to write a paper that critically engages a sampling of the literature on one of the topics we cover during the semester, and still other students may wish to write a polemical essay on a topic related in some fashion to the course. This should be a serious paper, and you should get started on it early. Abstracts with bibliographies, outlines, and drafts should be submitted prior to the final paper. I expect as students proceed with their papers we will find class time to exchange ideas and discuss each other's work.

–Abstracts with bibliographies due: March 3.

–Outlines due: April 7.

–Drafts due: April 21.

–FINAL PAPERS DUE (IN MY BOX): BY 4 P.M. ON MAY 10TH. Late papers will not be accepted without prior permission.

Predecessors

January 28

Robert K. Merton. 1973 [1942]. “The Normative Structure of Science. Pages 254-278 in *the Sociology of Science: Theoretical and Empirical Investigations*. Chicago: University of Chicago Press.

Bruno Latour and Steve Woolgar. 1986 [1979]. *Laboratory Life: The Construction of Scientific Facts*. Princeton, NJ: Princeton University Press. Pages 105-150.

Stuart Blume. 1974. *Toward a Political Sociology of Science*. New York: Free Press. Pages 31-98.

Concepts

February 4

Scott Frickel and Kelly Moore. 2006. "Prospects and Challenges for a New Political Sociology of Science." Pages 3-34 in Scott Frickel and Kelly Moore (eds.), *The New Political Sociology of Science*. Madison, WI: University of Wisconsin Press.*

Daniel Lee Kleinman. 2003. *Impure Cultures: University Biology and the World of Commerce*. Madison, WI: University of Wisconsin Press. Pages 33-64.*

Pierre Bourdieu. 2004. *Science of Science and Reflexivity*. Chicago: University of Chicago Press. Pages 1-84.*

Science, Industry, and the Knowledge Economy

February 11

David Hess. 2006. "Antiangiogenesis Research and the Dynamics of Scientific Fields: Historical and Institutional Perspectives in the Sociology of Science." In Frickel and Moore, pages 122-147.*

Daniel Lee Kleinman. 2003. *Impure Cultures: University Biology and the World of Commerce*. Madison, WI: University of Wisconsin Press. Pages 3-33 and 65-163.*

February 18

Walter Powell, K. Koput, and Laurel Smith-Doerr. 1996. "Interorganizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology." *Administrative Science Quarterly* 41: 116-145.

Jason Owen-Smith. 2006. "Commercial Imbrolios: Proprietary Science and the Contemporary University." Pages 63-90 in Frickel and Moore.

February 25

Laurel Smith-Doerr. 2004. "Flexibility and Fairness: Effects of the Network Form of Organization on Gender Equity in Life Sciences Careers." *Sociological Perspectives* 47(1): 25-54.

Annalee Saxenian. *Regional Advantage: Culture and Competition in the Silicon Valley and Route 128*. Cambridge, MA: Harvard University Press. Pages 1-82. More if you have time.*

Daniel Lee Kleinman and Steven Vallas. 2006. "Contradiction in Convergence: Universities and Industry in the Biotechnology Field." In Frickel and Moore, pages 35-62.

Science, State Building, and Public Policy

March 3

Patrick Carroll. 2006. *Science, Culture, and Modern State Formation*. Berkeley: University of California Press.*

March 10

David Hart. *Forged Consensus: Science, Technology, and Economic Policy in the United States, 1921-1953*. Pages 3-82.

Daniel Kleinman. 1995. *Politics on the Endless Frontier: Postwar Research Policy in the United States*. Durham, NC: Duke University Press. Pages 100-144.

Science and the Regulatory State

March 24

Steven Epstein. 2006. "Institutionalizing the New Politics of Difference in U.S. Biomedical Research: Thinking Across the Science/State/ Society Divides." In Frickel and Moore, pages 327-350.

Jenny Reardon. 2006. "Creating Participatory Subjects: Science, Race, and Democracy in a Genomic Age." In Frickel and Moore, pages 351-377.

David H. Guston. 2006. "On Consensus and Voting in Science: From Asilomar to the National Toxicology Program." In Frickel and Moore, pages 378-404.

Laurel Smith-Doerr. 2006. "Learning to Reflect or Deflect? U.S. Policies and Graduate Programs' Ethics Training for Life Scientists." In Frickel and Moore, pages 405-431

Maren Klawiter. 2006. "Regulatory Shifts, Pharmaceutical Scripts, and the New Consumption Junction: Configuring High Risk Women in an Era of Chemoprevention." In Frickel and Moore, pages 432-460.

Science and Social Movements

March 31

Scott Frickel. 2004. "Just Science? Organizing Scientist Activism in the U.S. Environmental Justice Movement." *Science as Culture* 13(4): 449-471.

Rachel A. Schurman and William Munro. 2004. "Ideas, Thinkers, and Social Networks: The Process of Grievance Construction in the Anti-Genetic Engineering Movement," *Theory and Society* 35: 1-38.

Barbara Allen 2004. "Shifting Boundary Work: Issues and Tensions in Environmental Health Science in the Case of Grand Bois, Louisiana." *Science as Culture* 13(4): 429-448.

David Hess. 2004. "Organic Food and Agriculture in the US: Object Conflicts in a Health-Environmental Social Movement," *Science as Culture* 13(4): 493-514.

April 7

Kelly Moore. 2007. *Disrupting Science: Social Movements, American Scientists, and the Politics of the Military, 1945-1975*. Princeton, NJ: Princeton University Press.*

Disciplines and Interdisciplines

April 14

Timothy Lenoir. *Instituting Science: The Cultural Production of Scientific Disciplines*. Pages 1-96.

Richard Whitley. *The Intellectual and Social Organization of the Sciences*. Pages 153-219.

Scott Frickel and Neil Gross. 2005. "A General Theory of Scientific/Intellectual Movements." *American Sociological Review* 70: 204-232.

April 21

Scott Frickel. 2004. *Chemical Consequences: Environmental Mutagens, Scientist Activism, and the Rise of Genetic Toxicology*. New Brunswick, NJ: Rutgers University Press.*

Counter-Expertise and Participatory Science

April 28

David Hess. 2007. *Alternative Pathways in Science and Industry*. Cambridge, MA: MIT Press.*

May 5.

Steve Epstein. 2000. "Democracy, Expertise, and AIDS Treatment Activism. Pages 15-32 in Daniel Lee Kleinman (ed.), *Science, Technology, and Democracy*. Albany, NY: SUNY Press.

Phil Brown. 2000. "Popular Epidemiology and Toxic Waste Contamination: Lay and Professional Ways of Knowing." In Steve Kroll-Smith, Phil Brown, and Valerie J. Gunter (eds.), *Illness and the Environment: A Reader in Contested Medicine*. New York: NYU Press.

Brian Wynne. 1996. "May the Sheep Safely Graze? A Reflexive View of the Expert-Lay Knowledge Divide." In S. Lash, B. Szerszynski and B. Wynne (eds.), *Risk, Environment, and Modernity: Towards a New Ecology*. London: Sage Publications.