

Sociology 476:
The Politics of Knowledge:
A Sociological Introduction to
Science and Technology Studies
Spring 2011

Tuesdays, 2:00-4:50 pm, in Parkes 222

Professor Steven Epstein
Department of Sociology
Northwestern University

Contact info:

Office phone: 847-491-5536

E-mail: s-epstein@northwestern.edu

Web page: <http://www.sociology.northwestern.edu/faculty/StevenEpstein.html>

Drop-in office hours this quarter:

**Thursdays, 2:00-3:00 pm, in University Hall 020 (Garden Level); 847-467-1046
(or by appointment)**

A copy of this syllabus can be found on the Blackboard site for the course.

Summary:

This course is motivated by the assumption that questions of knowledge and technology have become central to the political and cultural organization of modern societies. The fundamental goal of the course is to develop tools to understand both the social organization of science and the technoscientific dimensions of social life. Although much of the actual course content concerns science and technology, the theoretical and analytical frameworks developed in this course are intended to apply to any domain involving knowledge, expertise, or technologies.

By examining the social, cultural, and political dimensions of knowledge production, the course provides a broad introduction to sociological perspectives within Science & Technology Studies (STS). While being sensitive to the interdisciplinary character of STS, we will emphasize the following questions:

- What have been the dominant approaches to the sociological study of science and technology? How have different schools developed, what sorts of questions do they ask, and what theories and analytical tools do they offer?
- How do these various approaches help us understand such topics as the organization of intellectual work, the politics of knowledge production, the design and dissemination of technologies, the standardization of knowledge products, the character of “knowledge societies,” the relations between laypeople and experts, the technological mediation of identity formation, and the nature of governance in technologically sophisticated societies?
- In which ways are present-day studies of science and technology consistent with, and in which ways are they in tension with, other approaches to understanding knowledge, culture, politics, etc., that are employed within sociology today?

Needless to say, in a course of nine weeks, the assigned reading is a highly selective (and ultimately somewhat arbitrary) subset of relevant literature, and we will be leaving out many classics as well as many important recent works. I will be posting on Blackboard a separate list of recommendations for further reading and notes about relevant journals in the field. That information should be helpful to you as you work on your papers for the course; it should also provide resources for students who seek a more thoroughgoing expertise in the sociology of science and technology.

Although many of the themes we will address have a long history, the emphasis will be on developments of the last several decades. The course focuses largely (but not completely) on the United States, though we will try whenever possible to place developments in a global context. While much of the scholarship we will consider is broadly sociological, some of it is drawn from other fields. Students from other disciplines are welcome.

Course Mechanics:

- ◆ This course will make use of the “**Blackboard**” course management system (<https://courses.northwestern.edu/webapps/login/>). Students are responsible for logging in, checking regularly for posted announcements, and obtaining readings and assignments from the site.
- ◆ Important course **announcements** may also be sent to students’ registered campus email addresses. You are responsible for monitoring those email accounts.
- ◆ This syllabus and schedule are **subject to change** in the event of unforeseen circumstances. Announcements of changes will be posted on Blackboard and emailed to students.
- ◆ There are **three required books** for this course, which you should obtain from your preferred vendor (they are also on reserve at the library):

Knorr Cetina, Karin. 1999. *Epistemic Cultures: How the Sciences Make Knowledge*. Cambridge, MA: Harvard University Press.

Lamont, Michèle. 2009. *How Professors Think: Inside the Curious World of Academic Judgment*. Cambridge, MA: Harvard University Press.

Epstein, Steven. 2007. *Inclusion: The Politics of Difference in Medical Research*. Chicago: University of Chicago Press.

All other required course readings are available for download from the Blackboard site in the form of **PDFs**. Please bring readings with you to class.

A list of **recommended readings**, organized by week, will be posted on Blackboard.

- ◆ Your grade for the quarter will be based on the following **course requirements**:
 - 1) Students (including auditors) are expected to attend the seminar regularly and participate actively in discussions.
 - 2) In addition, each student (including auditors) will be asked to circulate discussion questions in advance of two class meetings during the quarter. These questions must be emailed to all participants in the seminar by 5:00 pm on the day before class. Students will sign up for specific weeks at the first meeting of the seminar. Ideally, the questions should help frame the seminar discussion by asking about key arguments and concepts, juxtaposing and comparing readings, raising concerns, and beginning the process of articulating critiques. Please try to come up with two or three questions per reading, for at least three of the readings for the week.

Everyone should read the distributed discussion questions before class. I will try to make sure we address as many of them as possible during the seminar meeting. In addition, the students who prepare questions for the week are asked to take responsibility to help bring us back to those questions during the discussion.

3) Students taking the course for credit must submit a paper (around 20 pages in length, not including references) by noon on Tuesday, June 7. Please submit the paper in two different ways: as a hardcopy in my mailbox in the Sociology department, and as a Word file sent by email attachment. I will read the hardcopy but do all my grading on the email attachment. I will then email the graded attachment back to you.

I am relatively open about directions in which you might take your paper, provided that you get my approval for your topic as described below. Your paper may be empirical with a theoretical framing, or it may take the form of a critical review of the literature. In either case, the paper must draw on course materials but must also extend beyond course readings. The paper need not deal directly with the domains of science or technology, as long as it engages with the questions concerning the “politics of knowledge” that are at the heart of this course.

Although in practice your paper may be a “first stab” at something you will develop in greater detail later (for example, a second-year paper, special field paper, or prospectus), it should stand on its own and not read like a rough draft. The paper should articulate an identifiable argument. It should be addressed to a general academic reader (that is, it should not reference class discussions or refer informally to “the articles we read for this seminar”). Please proofread carefully and pay close attention to matters of style, syntax, and organization. The paper should include a title and should be broken into sections with headings. Use parenthetical citations for quotes and references to other texts. List all such texts in your bibliography. (You may use any standard bibliographic style, as long as you are consistent.) Please use a standard font and a ragged right margin (rather than right justification).

You must get my approval of your proposed topic for the paper by emailing me a written description by no later than Monday, April 25 (1-2 paragraphs plus a short reference list). If your paper will be thematically similar to, or will have any overlap in actual content with, any other paper you have written in the past or are writing this quarter, please also provide a clear description of the overlap as well as an explanation of how your paper for this class will differ.

In addition, I strongly advise you to come to my office hours to discuss your paper topics!

- ◆ **Incompletes** are heartily discouraged.
- ◆ Any student with a documented **disability** who needs accommodations should contact the Office of Services for Students with Disabilities (SSD; 847-467-5530) and should speak

with me as early as possible in the quarter, ideally within the first week of classes. All discussions will remain confidential.

- ◆ I am committed to very strict enforcement of university regulations concerning **academic integrity**, which means that I report all suspected violations of the policy (including suspicion of cheating, plagiarism, fabrication, obtaining an unfair advantage, and aiding and abetting dishonesty) to campus authorities. Please be certain to familiarize yourself with the university's policy on academic integrity (<http://www.northwestern.edu/uacc/>), and ask me if you have any questions or concerns.

Schedule of Readings and Assignments:

WEEK 1 (March 29): Course Introduction; Sociologies of Knowledge

Mannheim, Karl. 1936. *Ideology and Utopia*. New York: Harcourt, Brace & World. Pp. 49-78 (Ch. 2, sections 1-6 only).

Durkheim, Emile. 1915. *The Elementary Forms of the Religious Life*. London and New York: G. Allen & Unwin. Pp. 462-496 (Conclusion).

Haraway, Donna. 1988. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14 (3): 575-599.

WEEK 2 (April 5): Early Sociologies of Science

Merton, Robert K. 1973. *The Sociology of Science: Theoretical and Empirical Investigations*. Chicago: University of Chicago Press. Pp. 442-459 (Ch. 20: "The Matthew Effect in Science").

Latour, Bruno, and Steve Woolgar. [1979] 1986. *Laboratory Life: The Construction of Scientific Facts*. Princeton, NJ: Princeton University Press. Pp. 15-53 (Ch. 1 and part of Ch. 2).

Bourdieu, Pierre. 1975. "The Specificity of the Scientific Field and the Social Conditions of the Progress of Reason." *Social Science Information* 14 (6): 19-47.

WEEK 3 (April 12): The Sociology of Scientific Knowledge

Bloor, David. [1976] 1991. *Knowledge and Social Imagery*. 2nd ed. Chicago: University of Chicago Press. Pp. 3-23, 46-54 (Ch. 1 and 3).

Collins, Harry M. 1974. "The TEA Set: Tacit Knowledge and Scientific Networks." *Science Studies* 4: 165-86.

Shapin, Steven. 1995. "Cordelia's Love: Credibility and the Social Studies of Science." *Perspectives on Science* 3 (3): 76-96.

Pinch, Trevor J., and Weibe E. Bijker. 1993. "The Social Construction of Facts and Artifacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other." Pp. 17-50 in *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*, edited by W. E. Bijker, T. P. Hughes and T. J. Pinch. Cambridge, MA: MIT Press.

WEEK 4 (April 19): Actor-Network Theory

Latour, Bruno. 1983. "Give Me a Laboratory and I Will Raise the World." Pp. 141-170 in *Science Observed: Perspectives on the Social Study of Science*, edited by K. D. Knorr-Cetina and M. Mulkay. London: Sage.

Callon, Michel. 1986. "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay." Pp. 196-233 in *Power, Action, and Belief*, edited by J. Law. London: Routledge & Kegan Paul.

Latour, Bruno. 1992. "Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts." Pp. 225-258 in *Shaping Technology, Building Society: Studies in Sociotechnical Change*, edited by W. E. Bijker and J. Law. Cambridge, MA: MIT Press.

****REMINDER: PAPER TOPICS DUE MONDAY, APRIL 25.**

Week 5 (April 26): Within and Across Epistemic Cultures

Knorr Cetina, Karin. 1999. *Epistemic Cultures: How the Sciences Make Knowledge*. Cambridge, MA: Harvard University Press. Pp. 1-110, 241-260 (Chapters 1-4, 10).

Star, Susan Leigh, and James R. Griesemer. 1989. "Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39." *Social Studies of Science* 19: 387-420.

Mukerji, Chandra. 1994. "Toward a Sociology of Material Culture: Science Studies, Cultural Studies and the Meanings of Things." Pp. 143-162 in *The Sociology of Culture: Emerging Theoretical Perspectives*, edited by D. Crane. Oxford: Blackwell.

WEEK 6 (May 3): Cultures of Knowledge and Evaluation

Lamont, Michèle. 2009. *How Professors Think: Inside the Curious World of Academic Judgment*. Cambridge, MA: Harvard University Press. Pp. 1-106, 202-249 (Ch. 1-3, 6-7).

Camic, Charles, Neil Gross, and Michèle Lamont. Forthcoming. "Introduction: The Study of Social Knowledge Making." In *Social Knowledge in the Making*, edited by Camic, Gross, and Lamont. Chicago: University of Chicago Press.

Espeland, Wendy Nelson, and Mitchell L. Stevens. 2008. "A Sociology of Quantification." *European Journal of Sociology* XLIX (3): 401-436.

Lezaun, Javier. 2007. "A Market of Opinions: The Political Epistemology of Focus Groups." *Sociological Review* 55 (suppl. 2): 130-151.

WEEK 7 (May 10): Institutions, Politics, and Social Order

Epstein, Steven. 2007. *Inclusion: The Politics of Difference in Medical Research*. Chicago: University of Chicago Press. Pp. 1-154, 277-302 (Introduction, Ch. 1-7, Conclusion).

Frickel, Scott, and Kelly Moore. 2006. "Prospects and Challenges for a New Political Sociology of Science." In *The New Political Sociology of Science: Institutions, Networks, and Power*. Madison: University of Wisconsin Press. Pp. 3-14 **only**.

Reardon, Jennifer. 2001. "The Human Genome Diversity Project: A Case Study in Coproduction." *Social Studies of Science* 31 (3): 357-388.

WEEK 8 (May 17): Professionals, Laypeople, and the Politics of Expertise

Fourcade, Marion. 2009. *Economists and Societies: Discipline and Profession in the United States, Britain, and France, 1890s to 1990s*. Princeton, NJ: Princeton University Press. Pp. 1-30 (Introduction).

Wynne, Brian. 1992. "Misunderstood Misunderstandings: Social Identities and Public Uptake of Science." *Public Understanding of Science* 1: 281-304.

Epstein, Steven. 1995. "The Construction of Lay Expertise: AIDS Activism and the Forging of Credibility in the Reform of Clinical Trials." *Science, Technology, & Human Values* 20 (4): 408-437.

OR: Those who read *Impure Science* in my seminar last year can instead review the Introduction, Part 2, and Conclusion.

Collins, H.M., and Robert Evans. 2002. “The Third Wave of Science Studies: Studies of Expertise and Experience.” *Social Studies of Science* 32 (2): 235-296.

WEEK 9 (May 24): Self-fashioning, Participatory Politics, and Technoscientific Governance

Nelson, Alondra. 2008. “Bio Science: Genetic Genealogy Testing and the Pursuit of African Ancestry.” *Social Studies of Science* 38 (5): 759-783.

Reardon, Jenny. 2007. “Democratic Mis-Haps: The Problem of Democratization in a Time of Biopolitics.” *BioSocieties* 2: 239-256.

Jasanoff, Sheila. 2005. *Designs on Nature: Science and Democracy in Europe and the United States*. Princeton, NJ: Princeton University Press. Pp. 247-271 (Ch. 10).

Callon, Michel. 2003. “The Increasing Involvement of Concerned Groups in R&D Policies: What Lessons for Public Powers?” Pp. 30-68 in *Science and Innovation: Rethinking the Rationales for Funding and Governance*, edited by A. Geuna, A. J. Salter and W. E. Steinmueller. Cheltenham, UK: Edward Elgar.

Lezaun, Javier, and Linda Soneryd. 2007. “Consulting Citizens: Technologies of Elicitation and the Mobility of Publics.” *Public Understanding of Science* 16: 279-297.

****REMINDER: PAPERS DUE BY NOON ON TUESDAY, JUNE 7 (HARDCOPIES IN MY BOX IN 1810 CHICAGO AVENUE AND WORD DOCUMENTS BY EMAIL ATTACHMENT).**