

Core Seminar in Science Studies (COGR 225B, HIGR 239, PHIL 209B, SOCG 255B)

Tuesdays, 9:30a - 12:20pm, HSS 3027

Profs. Tal Golan & Charles Thorpe

tgolan@ucsd.edu

cthorpe@ucsd.edu

Topic: Science and the Public Sphere

This seminar will explore the relationship between science and the liberal democratic public sphere. Science has often been taken by liberals to exemplify the values which operate in the public sphere. Scientific discourse has been treated as a model for the democratic discourse through which the state is held accountable in public. Yet, science as specialized expertise, fostered in elite communities, is also detached from the lay discourse of the public sphere. This detachment is increasingly challenged as new social movements and skeptical publics question expert prerogatives. Recent years have seen influential calls for public participation or engagement in scientific and technological decision-making, with the potential to open up scientific communities to the broader public sphere. We aim to unpack the complex relations between science and the public, examining the place of science in liberal political thought, paying attention to classic historical debates and examples, and looking at new participatory challenges.

Books to Buy:

Margaret C. Jacob and Larry Stewart. *Practical Matter: Newton's Science in the Service of Industry and Empire, 1687-1851* (Cambridge: Harvard University Press, 2004)

Steven Turner, *Liberal Democracy 3.0: Civil Society in an Age of Experts* (Sage, 2003). One copy also available from SSH reserves.

Steven Shapin, *The Scientific Life: A Moral History of a Late Modern Scientific Vocation* (Chicago: University of Chicago Press, 2008).

Tal Golan, *Laws of Men and Laws of Nature: The History of Expert Testimony in the England and America* (Cambridge: Harvard University Press, 2004).

Michael Gibbons et al., *The New Production of Knowledge* (Sage, 1994).

Other readings will be available via SSH library electronic reserves (<http://reserves.ucsd.edu/eres/default.aspx>) or placed on physical reserve at SSH or will be available on the Web-CT site for the course.

Assessment

Coursework: 90%

Class discussion and presentation: 10%

Presentation and Coursework

A group of students will lead each session. They will :

- a. Prepare a set of questions before the session and distribute it by Monday.
- b. Present short reviews in class and lead discussion
- c. Write a 5 paper essay about that week's topic and enter it the week after.

Each student should present 3 times during the quarter and submit 3 papers.

Attendance policy.

Attendance at seminars is mandatory.

If you miss more than two seminars during the term, without prior permission or valid reason (medical, or family emergency) you may receive a failing grade for the course.

1) Introductory session:

Recommended background reading

Steven Turner, "The Social Study of Science Before Kuhn," in Edward J. Hackett et al., *The Handbook of Science and Technology Studies, Third Edition* (2008), 33-62.

Charles Thorpe, "Political Theory in Science and Technology Studies," Hackett et al., *The Handbook of Science and Technology Studies* (2008), 63-82.

Philip Mirowski and Esther-Mirjam Sent, "The Commercialization of Science and the Response of STS," in Hackett et al., *The Handbook of Science and Technology Studies* (2008), pp. 635-689.

2) Science, Public Life, and Practice – Historical Approach

Jacob and Stewart. *Practical Matter. Read all.*

3) Science and the Making of the Public Sphere – Political Theory Approach

Required reading:

Yaron Ezrahi, *The Descent of Icarus: Science and the Transformation of Contemporary Democracy* (Cambridge, MA: Harvard University Press, 1990), pp. 1-236.

At least one copy in SSH physical reserves, also copy will be placed in Science Studies office for short loans.

4) Science and the Law

Required reading:

Golan, *Laws of Men and Laws of Nature*, read all.

Recommended further reading:

Hamlin Chris, "A Virtue-Free Science for Public Policy?" *Minerva* 43 (4) (December 2005): 397-418.

5) Scientific Movements, Scientific Intellectuals and the Public in the 20th Century

Required reading:

Werskey, Gary, "The Marxist Critique of Capitalist Science: A History in Three Movements?" *Science as Culture* 16 (4) (2007): 397-461.

Charles Thorpe, "Community and the Market in Michael Polanyi's Philosophy of Science" *Modern Intellectual History* 6 (1) (April 2009): 59-89.

Jessica Wang, "Scientists and the Problem of the Public in Cold War America, 1945-1960," *Osiris* 17 (2002): 323-47.

David Hollinger, "Laissez-Faire Communitarianism," in *Science, Jews, and Secular Culture: Studies in Mid-Twentieth Century American Thought* (Princeton University Press, 1998).

David Hollinger, "Science as a Weapon in Kulturkämpfe in the United States During and After World War Two," in *Science, Jews, and Secular Culture*.

Recommended further reading:

Andrew Jewett, "Science and the Promise of Democracy in America," *Daedalus* (Fall 2003): 64-70.

6) Liberal Democracy and Expert Authority

Required reading:

Turner, *Liberal Democracy 3.0*. Read all.

7) Scientific Authority and Moral Order

Required reading:

Shapin, *The Scientific Life*. Read all.

8) Risk Society

Required reading:

Ulrich Beck, “The Reinvention of Politics: Towards a Theory of Reflexive Modernization,” in Ulrich Beck, Anthony Giddens, Scott Lash, *Reflexive Modernization: Politics, Tradition, and Aesthetics in the Modern Social Order* (Stanford: Stanford University Press, 1994).

Fischer, Frank, *Citizens, Experts, and the Environment: The Politics of Local Knowledge* (Duke University Press, 2000), Chapters 2 “Professional Knowledge and Citizen Participation,” Chapter 3 “Environmental Crisis and the Technocratic Challenge,” and Chapter 8 “Citizens as Local Experts: Popular Epidemiology and Participatory Resource Mapping”

Sylvia Tesh, *Uncertain Hazards* (Cornell UP: 2000), Chapter 2 “Environmental Health Research,” and Chapter 5 “Environmental Science”

9) ‘Mode 2’ Science

Gibbons, et al., *The New Production of Knowledge*. Read all.

10) Public understanding of science – from deficit to dialogue

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

Rebecca Willis and James Wilsdon, *See-Through Science: Why Public Engagement Needs to Move Upstream* (London: Demos, 2003),
<http://www.demos.co.uk/files/Seethroughsciencefinal.pdf> (62pp. excluding notes)

Mark Elam and Margareta Bertilsson, “Consuming, Engaging and Confronting Science: The Emerging Dimensions of Scientific Citizenship,” *European Journal of Social Theory* 6 (2) (2003): 233-251.

Alan Irwin, “The Politics of Talk: Coming to Terms with the ‘New’ Scientific Governance” *Social Studies of Science* 36 (2006): 299-320.