

**Topics in Medical History:  
The History of Objectivity in Medicine  
HIST 457B**

Prof. T. Schlich  
Winter Term 2006  
Tuesday 2.05-4.55 PM  
3647 Peel Street, room 101

*Contact Information*

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*Course Requirements*

All students should have taken at least History 349 or an equivalent course. Students will be required to write a term paper of 20 pages in length on a topic related to the history of objectivity in medicine broadly conceived. This paper will count for 50 per cent of your final grade. Class participation will count for another 50 per cent. Participation includes attendance, performance of assigned tasks and contributions to discussions. Assignment will consist e.g. in introductions to the readings of the session (20-30 minutes). The readings for this course are available in the form of a course pack that can be purchased at the McGill bookstore.

*On the course*

This course is on the history of objectivity in medicine. It will deal with the various attempts at objectivizing and standardizing medical knowledge and practice. We will discuss concepts like objectivity and science from a historical point of view and analyze in which way their meaning varied according to historical context. We will look at how doctors tried to base medicine on science in different ways and how these strategies related to each other. On the level of methodology and theory, this course will introduce different ways of examining the issue of objectivity in medicine. We will discuss historical approaches as well as methods from the field of science and technology studies and how they can be used for research. The source material in the readings will be analyzed in the light of a selection of secondary literature.

## **1 Sept: Introduction**

### **8 Sept: The History of Objectivity**

Lorraine Daston, "Objectivity and the Escape from Perspective", *Social Studies of Science* 22 (1992), pp. 597-618.

Lorraine Daston and Peter Galison, "The Image of Objectivity", *Representations* 40 (1992), pp. 81-128.

\*Lorraine Daston: "The Moral Economy of Science", *Osiris* 10 (1995), pp. 3-24;

\*Peter Galison, "Objectivity is Romantic", *American Council of Learned Societies, Occasional Paper* No. 47, 1999, <http://acls.org/op47-3.htm#galison>).

Source: entry "objective" Merriam-Webster Online Dictionary, <http://www.m-w.com/cgi-bin/dictionary?va=objectivity>

### **15 Sept.: Medicine and Science**

John Harley Warner, "The History of Science and the Sciences of Medicine", *Osiris* 10 (1995), pp. 164-193.

John Pickstone, *Ways of Knowing. A New History of Science, Technology and Medicine*, Manchester: Manchester University Press, pp. 143-146.

\*John V. Pickstone, "Ways of Knowing: Towards a Historical Sociology of Science, Technology and Medicine", *British Journal for the History of Science* 26 (1993), pp. 433-458).

Source: definition of science from assignment

### **22 Sept.: Scientific Medicine 1: Pathological Anatomy and Clinical Medicine**

William Bynum, *Science and the Practice of Medicine in the Nineteenth Century*, Cambridge: Cambridge University Press 1994, pp. 25-54.

Erwin H. Ackerknecht, *Medicine at the Paris Hospital 1794-1848*, Baltimore: Johns Hopkins Press 1967, pp. 47-58, 83-99.

\*Michel Foucault, *The Birth of the Clinic. An Archeology of Medical Perception*, London: Tavistock 1973 (first published in French in 1963), pp. ix-xix, 124-148.

Source: R.T.H. Laennec, *A Treatise on the Disease of the Chest*, translated by John Forbes, New York: Hafner, 1962 (English translation of 1821, first published in French in 1819), pp. xxix-xxv, 1-36. .

### **29 Sept.: Scientific Medicine 2: Laboratory Science**

Bruno Latour, "Give me a Laboratory and I will Raise the World", in K.D. Knorr-Cetina and M. Mulkay (eds.), *Science Observed*, Beverly Hills: Sage 1983, pp. 141-170.

\*Bruno Latour, "Visualization and Cognition: Thinking with Eyes and Hands", in *Knowledge and Society: Studies in the Sociology of Culture Past and Present* 6 (1986), pp. 1-40.

\*Thomas Schlich, "Making Mistakes in Science: Eduard Pflüger, His Scientific and Professional Concept of Physiology and His Unsuccessful Theory of Diabetes (1903-1910)", *Studies in History and Philosophy of Science* 24 (1993), pp. 411-444.

Source: Claude Bernard, *An Introduction to the Study of Experimental Medicine*, New York: Dover 1957 (first published in French in 1865), pp. 1-19, 129-140.

### **6 Oct.: Scientific Medicine 3: Quantification**

George Weisz, *The Medical Mandarins. The French Academy of Medicine in the Nineteenth and Early Twentieth Centuries*, Oxford: Oxford University Press 1995, pp. 159-188.

J. Rosser Matthews, *Quantification and the Quest for Medical Certainty*, Princeton: Princeton University Press 1995, pp. 62-85 (notes pp. 161-165). (\**ibid.* pp. 14-38, 86-114).

\*Ian Hacking, *The Taming of Chance*, Cambridge: Cambridge University Press 1990, pp. 1-10 (The argument), pp. 81-86 (ch. on Broussais and Louis).

Source: Pierre Louis, *Researches on the Effects of Bloodletting in some Inflammatory Diseases*, English edition (1836), pp. 55-69.

### **13 Oct.: The Clinical Trial (Term Paper Outline due)**

Harry Marks, *The Progress of Experiment: Science and Therapeutic Reform in the United States, 1900-1990*, Cambridge: Cambridge University Press 1997, pp. 197-228.

Eveleen Richards, "The Politics of Therapeutic Evaluation: The Vitamin C and Cancer Controversy", *Social Studies of Science* 18 (1988), pp. 653-701.

\*Ted J. Kaptchuk, "Intentional Ignorance: A History of Blind Assessment and Placebo Controls in Medicine", *Bulletin of the History of Medicine* 72 (1998), pp. 389-433.

Sources: J.B. Moseley et al., "A Controlled Trial of Arthroscopic Surgery for Osteoarthritis of the Knee", *New England Journal of Medicine* 347, No. 2 (July 11, 2002), pp. 81-88; Mohit Bhandari et al., "The Quality of Reporting of Randomized Trials in *The Journal of Bone and Joint Surgery* from 1988 through 2000", *Journal of Bone and Joint Surgery* 84-A, no. 3 (March 2002), pp. 388-396.

### **20 Oct.: Evidence Based Medicine**

George Weisz: *From Clinical Counting to Evidence-Based Medicine*, unpublished manuscript 2004.

Stefan Timmermans and Marc Berg, *The Gold Standard. The Challenge of Evidence-Based Medicine and Standardization in Health Care*, Philadelphia: Temple University Press 2003, pp. 142-165 (notes: 232-234).

Source: D.L. Sackett and W.M.C. Rosenberg, "The Need for Evidence-Based Medicine", *Journal of the Royal Society of Medicine* 88 (1995), pp. 620-624.

### **27 Oct.: Objectifying the Subjective: Pain**

Marcia Meldrum, "Each Patient His Own Control: James Hardy and Henry Beecher on the Problem of Pain Measurement", *American Pain Society Bulletin* vol. 9, no. 1 (Jan./Febr. 1999), <http://www.ampainsoc.org/pub/bulletin/jan99/history.htm>

D.J. Coon, "Standardizing the Subject: Experimental Psychologists, Introspection, and the Quest for a Technoscientific Ideal", *Technology and Culture* 34 (1993), pp. 757-783.

Sources: selection of dialogues and comments recorded in the reports of the Meeting of the Committee on Drug Addition, prepared by Noemi Tousignant (not in the course pack, will be distributed individually).

### **3 Nov.: Managing Uncertainty: Risk**

Thomas Schlich, “Risk and Medical Innovation: A Historical Perspective”, in Thomas Schlich and Ulrich Tröhler (eds.), *The Risks of Medical Innovation: Risk Perceptions and Assessment in Historical Context*, London and New York: Routledge 2005 (forthcoming).  
Robert A. Aronowitz, *Making Sense of Illness*, Cambridge: Cambridge University Press 1998, pp. 111-144 (notes pp. 223-233).

### **10 Nov.: Medicine as “Art” and “Science”**

Marc Berg, *Rationalizing Medical Work. Decision Support Techniques and Medical Practices*, Cambridge, Mass.: The MIT Press 1997, pp. 11-37 (notes pp. 179-184).

Michael Polanyi, *Personal Knowledge. Toward a Post-Critical Philosophy*. London: Routledge and Kegan Paul 1973 (first published in 1958), pp. 49-65.

\*Gordon, D. R. 1988. Clinical Science and Clinical Expertise: Changing Boundaries between Art and Science in Medicine. In *Biomedicine Examined*, ed. by M. Lock and D. Gordon, Dordrecht: Kluwer, pp. 257-295.

\*Lawrence, C. 1985. Incommunicable Knowledge: Science, Technology and the Clinical Art in Britain 1850-1914. *Journal of Contemporary History* 20: 503-20.

### **17 Nov.: Standardizing Medicine**

Marc Berg, *Rationalizing Medical Work. Decision Support Techniques and Medical Practices*, Cambridge, Mass.: The MIT Press 1997, pp. 155-178 (notes pp. 199-204).

Stefan Timmermans and Marc Berg, *The Gold Standard. The Challenge of Evidence-Based Medicine and Standardization in Health Care*, Philadelphia: Temple University Press 2003, pp. 1-29 (notes: 217-219).

\*Stefan Timmermans and Marc Berg, “Standardization in Action: Achieving Local Universality through Medical Protocols”, *Social Studies of Science* 27 (1997), pp. 273-305.

Source: M.E. Müller et al., *Manual of Internal Fixation. Techniques Recommended by the AO-Group*, second edition, Heidelberg: Springer 1979, pp. 210-227.

### **Tue, 23 Nov. 1.30-4.00 PM Workshop with John Pickstone “Deconstructing ‘Science’ - historical explorations and present politics” (optional)**

### **24 Nov.: Objectivizing Surgery (Term Papers due)**

David S. Jones, “Visions of a Cure: Visualization, Clinical Trials, and Controversies in Cardiac Therapeutics, 1968-1998”, *Isis* 91 (2000), pp. 504-541.

Thomas Schlich, *Surgery, Science and Industry. A Revolution in Fracture Care, 1950s-1990s*, Houndmills Basingstoke: Palgrave MacMillan 2002, pp. 28-45 (notes pp. 264-267), pp. 65-85 (notes pp. 271-275), pp. 110-137 (notes pp. 280-287).

Sources: B.P. Hanson, “Evidence Based Orthopedic Surgery”, *AO Dialogue* 1/2003, pp. 14-17;

### **24 Nov., 4.30 PM John Pickstone, seminar “Shifting scale. Micro-studies, big pictures and the historical analysis of medical technologies” (optional)**

**1 Dec.: Conclusion: How to do Research on the History of Objectivity in Medicine**

*The references with an asterisk \* are additional readings, they are not included in the course pack, but can be obtained on demand.*