

Ann Blair

**The "Two Cultures":
the sciences and the humanities in historical perspective**

ANN BLAIR will offer a seminar on the concept of the "two cultures" made famous by C.P. Snow, a Cambridge scientist turned novelist, who in a 1959 lecture decried what he saw as the gulf separating the sciences from the humanities in modern education and culture. The seminar will begin with an analysis of Snow's lecture and the controversy it generated in the historical context of post-war Britain. Then we will consider some of the factors that variously favored and limited the development of distinctions between the "sciences" and the "humanities" in selected episodes of European intellectual history, ranging from ancient Athens to the nineteenth century. Have these distinctions always been present in some form? Or were they produced by specific intellectual, cultural or social changes at particular points in time? Are they necessary? Are they useful? Readings will emphasize primary sources, ranging from works of fiction and of science (nothing technical!) to classifications of knowledge. We will close by considering some of the various claims being made today for a future reconciliation or bridging of the "two cultures."

Spring 2000 Ann Blair
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Freshman Seminar 5

The Two Cultures the sciences and the humanities in historical perspective

In 1959 C.P. Snow, a Cambridge scientist turned novelist, delivered a famous academic lecture on "The Two Cultures" in which he decried what he saw as the gulf separating the sciences from the humanities in modern education and culture. This lecture elicited considerable discussion of the specialization and fragmentation of modern culture--phenomena which have only continued to increase, it would seem, in the last 40 years. This seminar will begin with an analysis of Snow's lecture in its historical context and will then take a historical look at the factors that variously favored and limited the formation and development of distinctions between the "sciences" and the "humanities" in selected contexts of European history. We will close with some consideration of various claims for future reconciliation or bridging of the "two cultures."

Requirements:

- a spirit of collaborative exploration!
- regular attendance and active participation; students will be involved in some form of oral reporting almost every week.
- two short papers (4-6pp), due in Weeks IV and IX
- a final paper (8-10pp) due at the end of reading period

Available for purchase at the COOP:

Please note: All books are also on reserve in the libraries and many are available in MULTIPLE copies for regular check-out. In the case of Aristophanes, Socrates and Francis Bacon in particular, I recommend buying only what you'd like to own.

- C. P. Snow, The Two Cultures, intr. Stefan Collini (Cambridge University Press, 1998); 0-521-45730-0; \$10.95
- Aristophanes, The Clouds (Hackett); 0-87220-360-3
- The Trial and Death of Socrates (Hackett); 0-915144-15-8; \$3.95
- Francis Bacon, New Atlantis. I have ordered two editions: choose between them or choose neither and photocopy or check out this short text (50pp) from the library: Francis Bacon, New Atlantis (Kessinger Publishing Co); 1-56459-230-8; \$12.95 OR ed. Brian Vickers, Francis Bacon (Oxford UP); 0-19-282025-7; \$24.95 (many more words per dollar! for those interested in reading more Bacon later on)
- Thomas Shadwell, The Virtuoso (Univ of Nebraska Press); 0-8032-5368-0; \$8.95
- Mary Wollstonecraft Shelley, Frankenstein (Oxford UP); 0-19-283487-8
- Bruno Latour, Pandora's Hope (Harvard UP); 0-674-65336-X; \$19.95
- E.O. Wilson, Consilience (Random House); 0-679-76867-X

Syllabus

Week I (Feb 3): interviews

Part I: C.P. Snow in context

Week II (Feb 10): Snow's Rede lecture and its wide reception

Reading: Snow, The Two Cultures and A second look (pp. 1-107)

Exercise: find and bring to class a reference to Snow's concept of "two cultures." Be ready to report on how you found it--try not only the web, but also databases of articles in literature (MLA Silverplatter), History (Historical Abstracts) or less specialized periodicals (Academic Index).

Week III (Feb 17): Snow's lecture in context: post-war Britain

Reading: Stefan Collini's introduction to The Two Cultures (pp. i-lxxiii)

excerpts from Snow, Leavis, Trilling, and others in Cultures in conflict perspectives on the Snow-Leavis controversy (1964), pp. 1-54 (on reserve)

John Hultberg, "The two cultures revisited," Science Communication 18 (1997), pp. 194-215.

Graham Burnett, article forthcoming Daedalus

Week IV (Feb 24): Snow's lecture in context: debates over education

Reading: Thomas Henry Huxley "Science and culture," in Collected essays, vol. III: science and education, pp. 134-59.

Matthew Arnold, "Literature and science," in the The works of Matthew Arnold, vol. IV: Discourses in America, pp. 317-28.

Charles W. Eliot, "What is a liberal education?" in Educational Reform, pp. 89-122. and "The new education: its organization," in Charles W. Eliot and popular education, pp. 29-46.

Samuel Eliot Morison, Three Centuries of Harvard, ch. 14 (pp. 323-64).

Christopher Stray, Classics Transformed: Schools, Universities and society in England, 1830-1960, ch. 2 (the classical system)

Paper #1 due in class: compare and contrast the Snow-Leavis debate with the Huxley-Arnold debate (4-6pp). Paper topic will also be the subject of discussion.

Part II: a look backward

Week V (Mar 2): classifications of knowledge--an overview

Reading: stg on ancient classifications (ref TBA)

Hugh of St Victor, Didascalicon, pp. 60-84.

D'Alembert, Preliminary Discourse, pp. 40-59 + chart pp. 144-45.

Kuhn, "The Experimental and the Mathematical Traditions in Science," The Essential Tension, pp. 31-65.

Kristeller, "The Modern System of the Arts," Renaissance thought and the arts, pp. 163-227.

Exercise in terminology: research and report on the history of key terms: "science," "humanities," "social sciences," "philosophy," "discipline," "profession," and their equivalents in other languages (according to students' linguistic skills).

Week VI (Mar 9): opposition to science in ancient Athens

Students will work in two teams to present two cases from ancient Athens: Aristophanes' The Clouds and the trial of Socrates.

Reading: for everyone: Richard Olson, Science Deified, Science Defied, ch. 3 and pp. 120-23 on Plato and Gerald Holton, Science and Anti-Science, ch. 6.

Team 1: Aristophanes, The Clouds; team 2: Socrates, Apology in The Trial and Death of Socrates

Week VII (Mar 16): trends toward specialization

Reading: Francis Bacon, New Atlantis

browse Newton's Principia; Copernicus' preface to

De revolutionibus

Thomas Gieryn, Cultural Boundaries of Science, intro and ch. 1

Week VIII (Mar 23): disciplines without professions--the virtuosi

Reading: Thomas Shadwell, The Virtuoso

secondary source on Royal Society (ref TBA)

Presentations: students will each report on the career and writings of a member of the Royal Society (list of figures to be distributed)

Spring break (Mar 30)

Week IX (Apr 6): science in literature

Reading: Mary Wollstonecraft Shelley, Frankenstein

Paper #2 due in class: compare and contrast the visions of science in Bacon's New Atlantis OR Thomas Shadwell's The Virtuoso WITH those found in Mary Shelley's Frankenstein (4-6pp).

Part III: today and beyond

Week X (Apr 13): the "Science wars"--science as humanistic?

Reading: Bruno Latour, Pandora's Hope, chs. 1 and 7 and one other chapter (case study) of your choice

Trevor Pinch and Harry Collins, The Golem, intro and conclusion

A house built on sand ed Koertge, chs. 1-3 (pp. 7-57)

Week XI (Apr 20): humanities turned scientific

Readings: Auguste Comte, from the Cours de philosophie positive (1830) in Comte and positivism: essential writings, ed Gertrud Lenzer, pp. 71-86 (aims of this work) and pp. 195-217 (social physics).

E.O. Wilson, Consilience

Presentations: each student to bring in and report on a book review of Wilson's Consilience

Week XII (Apr 27): proposals for bridging the gap

Readings: Choose one (work in teams?):

Michael L. Dertouzos, What will be: how the new world of information will change our lives

Bruce Mazlish, The Uncertain Sciences

John Brockman ed., The Third culture.

Week XIII (May 4): conclusions

Student presentations on final papers in progress. General discussion.

Paper #3 due May 17 (last day of reading period): 8-10pp. Choose a text not read in class to analyze in light of the course readings. Possible texts include: a novel by C. P. Snow, a work of science fiction or featuring scientific practice, a programmatic text on a theme relevant to the course (e.g. in educational reform, social science, scientism or deconstruction of science) or a response to the Snow debates. A list of specific titles will be circulated--you may also propose your own choice of text.