

History of Science 205
Fall 2004
V. Hilts
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Scope:

This course discusses mankind's attempt to achieve self-knowledge through the methods of science. In so doing, it provides an overview of the emergence of the social and behavioral sciences.

Issues:

Attention will be given to the main problems facing those who would construct a science of human nature. Why were some attempts more successful than others? How closely could the social sciences imitate the methods of the natural sciences? What extra-scientific biases affected the development of the social sciences? Effort will be made to relate the emergence of the social and behavioral sciences to other aspects of the history of science and to other aspects of general intellectual and social history. Main emphasis in the lectures will be placed upon the period from the late eighteenth century to the early twentieth century. This period encompasses the first appearance of the sciences of political economy, anthropology, experimental psychology, and sociology as well as the abortive sciences of social physics, phrenology, and criminal anthropology.

Requirements:

There will be two hour exams and the final exam. No term paper is assigned in History of Science 205 except for students taking the course for honors credit. Readings in History of Science 205 will be assigned primarily from the following books-- Stephen Jay Gould, The Mismeasure of Man; Robert L. Heilbroner, The Worldly Philosophers; Raymond Fancher, Pioneers of Psychology, Margaret Mead, Coming of Age in Samoa. A small amount of additional material will be distributed in sections or made available for copying.

Instructor Office Hours:

Friday afternoons after 1:15. Also some Monday afternoons by prior arrangement. Office: 7139 Social Science Building. Email: vlhills@facstaff.wisc.edu

Teaching Assistant Office Hours: To be announced. Office: History of Science Department Offices, 7th floor, Social Science Building. Email: jltollner@wisc.edu

LECTURE SCHEDULE

Part I: Human Nature and Society

The first section of the course will examine the emergence of social thought in the seventeenth and eighteenth centuries. An effort will be made to understand why thinkers of the time became interested in understanding human nature. Among the particular topics covered will be the origins of political economy, the attempt to introduce quantitative ideas into social thought, and the background of the views of Karl Marx. Reading for this section will include Raymond E. Fancher, Pioneers of Psychology, chs. 1-2 and Robert L. Heilbroner, The Worldly Philosophers, chaps. 1-4 and 5. Additional readings will be distributed in sections or made available for copying. Readings and lectures will be coordinated in the discussion sections.

Sept. 8 (Wed.) Introduction: Course Overview

Sept. 13 (Mon.) The Scientific Revolution: New Methods of Knowing. Deduction and Induction.

Sept. 15 (Wed.) Humans as Rational Animals. Descartes and the Mind-Body Problem. Understanding Human Nature through Introspection.

Sept. 20 (Mon.) From the State of Nature to Society. The Reform of Government and Society. The History of Human Institutions? The State of Nature. The Idea of Progress.

Sept. 22 (Wed.) The Origins and Causes of Wealth. How do Nations become Wealthy? The Laws of Economics as Laws of Nature. Adam Smith and the Division of Labor.

Sept. 27 (Mon.) Thomas Malthus and his Law of Population. Poverty and Population in England.

Sept. 29 (Wed.) Adolphe Quetelet and the Origins of Statistical Social Science. John Graunt and William Petty on "political arithmetic." The causes of statistical regularity. Adolphe Quetelet's "social physics." The "average man" and the law of error.

Oct. 4 (Mon.) Auguste Comte: Positivism and the Promise of Sociology. The search for a new social order. Comte and the scientific method. The development of the sciences according to Comte. Sociology as the ultimate science.

Oct. 6 (Wed.) Karl Marx. Marx on the Role of Economics in History. Marx and Class Conflict. Marx's Critique of Capitalism.

Oct. 11 (Mon.) HOUR EXAM on Part I

Part II: Theories of Biology and Human Nature

This section will focus upon the emergence of biological theories about human nature. The period covered will be from the beginning of the nineteenth century until the early twentieth century, and the issues covered will include evolution, racism, and eugenics. Readings for this section will include chapters from Stephen J. Gould, The Mismeasure of Man and from Raymond Fancher, Pioneers of Psychology.

Oct. 13 (Wed.) Phrenology: A Pseudo Science of Skulls. The "Brain is the Organ of the Mind." Cerebral Localization and the plurality of faculties. Phrenologists as social reformers.

Oct. 18 (Mon.) Understanding Insanity. What causes insanity and can it be cured? The roles of civilization and biology.

Oct. 20 (Wed.) What Causes Racial Differences?. Race and civilization. The Controversy between Monogenists and Polygenists. Environmental explanations of racial differences. The analogy between variation in humans and animals. The American school of polygenism.

Oct. 25 (Mon.) National Character and the Myth of the Aryan Race. Eighteenth-century interest in national character. The development of historical linguistics. The "Cradle of Civilization." Max Muller and the Aryan hypothesis. Aryanism and the cephalic index.

Oct. 27 (Wed.) Discovery of Prehistory. The age of the Earth. Boucher de Perthes and claims for "antediluvian man." The rejection and then the rejection of evidence for prehistoric humans in Europe.

Nov. 1 (Mon) Darwinism and Evolutionary Social Thought. Pre-Darwinian Lamarck and the inheritance of acquired characteristics. The distinctiveness of Charles Darwin's evolutionary theory. Herbert Spencer and social Darwinism.

Nov. 3 (Wed.) Francis Galton: Human Heredity and the Origins of Eugenics. Early views on human heredity. The development of Galton's interest in heredity. Measuring "hereditary genius." Statistics and eugenics.

Nov. 8 (Mon.) What Causes Crime? Changing views on the crime and punishment. Jeremy Bentham and utilitarian thought. James Cowles Prichard and "Moral Insanity." C. Lombroso and the school of "criminal anthropology." Lombroso's critics.

Nov. 10 (Wed.) Eugenics in Britain and America. Karl Pearson and British eugenics. Charles Davenport and American eugenics.

Nov. 15 (Mon.) HOUR EXAM on Part II

Part III: Theories of Culture and Society

The focus of this section will be upon the development of social thought at the end of the nineteenth century and the early twentieth century. The major theme covered in this section will be attempts to understand the interrelationship between individuals and their cultures and societies. Reading will include Margaret Mead, Coming of Age in Samoa and some material to be distributed.

Nov. 17 (Wed.) Evolutionary Anthropology. The origin of human institutions. McLennan and the evolution of marriage. The concept of "psychic unity." The ladder of human development. Edward B. Tylor.

Nov. 22 (Mon.) Anthropologists and the American Indian: American interest in the American Indian. Jefferson and the "Civilization Program." Henry Rowe Schoolcraft and the discovery of Indian mythology. Lewis Henry Morgan and study of Indian kinship.

Nov. 24 (Wed.) Franz Boas and his American Followers. The concept of cultural relativity. Boas and his influence.

Nov. 29 (Mon.) Emil Durkheim and the Rules of Sociological Method. Durkheim's concept of society's influence on the individual. His study of the division of labor. His study of suicide. The concept of "anomie."

Dec. 1 (Wed.) Max Weber and the Protestant Ethic. The relationship of history and history and sociology. The rise of capitalism as a historical questions. The rise of capitalism as a sociological question. Weber's concept of the Protestant ethic.

Dec. 6 (Mon.) The "New Psychology" of Gustav Fechner and William Wundt. The development of the experimental method in psychology.

Dec. 8 (Wed.) Behaviorism. American psychology. William James. Edward Lynn Thorndike's study of animal intelligence. The Behaviorist manifesto of John B. Watson.

Dec. 13 (Mon.) Sigmund Freud. Views of the unconscious before Freud. The study of hypnotism. The Charcot school. Hypnotism and hysteria. Freud's search for a science of the mind. Freud and the interpretation of dreams. Freud's social psychology.

Dec. 15 (Wed.) Course Review.

Final Exam: 2:25 p.m., Monday, December 20

DISCUSSION SCHEDULE

Part I.

Sept. 3- 10: No sections until week after Labor Day

Sept. 13-17: No Reading. What are the sciences of human nature? What methods of investigation can they use?

Sept. 20-24: Reading: Fancher, Pioneers of Psychology, pp. 1-53 and selections (to be distributed) from Rene Descartes. Are humans rational in the sense meant by Descartes? What implications does the mind-body problem have for an understanding of human nature?

Sept. 27-Oct. 1: Reading: Robert L. Heilbroner, The Worldly Philosophers, ch. 1-4. Why did the Physiocrats and Adam Smith advocate a policy of *laissez faire*? What are the major differences between the physiocrats and Adam Smith? Why did Malthus believe that human progress would not result in the disappearance of poverty? What did he mean by arithmetic and geometric increase? Was he a pessimist or a realist?

Oct. 4-8: Reading: Robert L. Heilbroner, The Worldly Philosophers, ch. 5. Why did Marx dislike Malthus? Why did he believe that capitalism would eventually disappear? Was he right in thinking that economics is the most important force in history?

Oct. 11-15: Exam Week. No discussion sections.

Part II.

Oct. 18-22: Reading: Fancher, Pioneers of Psychology, pp. 73 - 95. What did phrenologists mean by arguing that the "brain is the organ of the mind"? How did their interests relate to early nineteenth-century reform movements? How were their views on the causes of insanity similar to and different from those of psychiatrists like Pinel and Esquirol?

Oct. 25-29: Reading: Stephen J. Gould, Mismeasure of Man, pp. 1-112. What was the monogenist-polygenist controversy? How did anthropologists believe that they could be scientific? How objective does Stephen J. Gould believe that nineteenth-century anthropometrists really were?

Nov. 1-5: Reading: Selections on national character and the Aryan myth (to be distributed.) Also, begin reading for following week. Are concepts of national character still important? Do Americans have any typical views of American national character?

Nov. 8-12: Reading: Fancher, Pioneers of Psychology, pp. 186 - 245. Stephen J. Gould, Mismeasure of Man, pp. 146 -243. What did Francis Galton mean by distinguishing "nature and nurture" and why did he believe that it was important to do so? What did Galton mean by "eugenics?" Why did the eugenics movement become important in the early twentieth century?

Nov. 15-19: Exam Week. Discussion Sections only on Wednesday and Friday. What did evolutionary anthropologists believe about the development of the human races? How did they define the word "culture?" What similarities did they make between the development of individuals and the development of races?

Part III.

Nov. 22-24. Thanksgiving Week. Discussion section only on Monday. What did evolutionary anthropologists believe about the development of the human races? How did they define the word "culture?" What similarities did they make between the development of individuals and the development of races?

Nov. 29- Dec. 3. Reading. Margaret Mead, Coming of Age in Samoa (entire). Discussion of Franz Boas and Margaret Mead.

Dec. 6-10. Reading. Selections from Emil Durkheim (to be distributed). How did Durkheim define sociology? What did Durkheim mean by "anomie." What were Durkheim's views concerning the relationship between the individual and society? What similarities and differences were there between his views on this topic and those of Max Weber?

Dec. 13-15. Members of the Friday discussion section should attempt to meet with a Monday or a Wednesday discussion section this week. Reading. Raymond Fancher, Pioneers in Psychology, pp. 284 - 328 and pp. 366 - 401. Why did Freud and the behaviorists come to different views regarding the possibility of studying conscious and unconscious behavior?

Final Exam: 2:25 p.m., Monday, December 20