HISTORY 368—Fall 2012

EVOLUTION AND SOCIETY

Carr 240; T Th 10:05-11:20

I. Instructor Margaret Humphreys, M.D., Ph.D.

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Office hours:

Before and after class; by appointment

II. Texts

Philip Appleman, ed., *Darwin* (3rd ed., N. Y: WW Norton, 2001).

Peter J. Bowler, *Evolution: The History of an Idea* (3rd ed., Berkeley: U. California Press,

2006).

Edward Larson, *Summer for the Gods: The Scopes Trial and America's Continuing Debate over Science and Religion* (Cambridge: Harvard University Press, 2006).

Diane Paul, *Controlling Human Heredity: 1865 to the Present* (Atlantic Highlands, N.J.: Humanity Books, 1999).

All texts have been ordered at The Regulator Bookshop on Ninth Street. The remaining readings are on Sakai, linked to the day they are due on the syllabus.

III. Assignments

1. Class presence.  Required. More than 4 invalid absences will result in lower    
                 grade.

2. Final “take home” examination

3. 4 brief papers (2-3 pages); 1 longer paper (7-10 pages). Short papers will be in response to questions about the readings.  The longer paper will be a research project on creationism/intelligent design or eugenics.   Short paper assignments are in the syllabus for the designated day.  The final project will be explained on a separate sheet; follow the link when it becomes available for more details.  You will revise the last paper after I have commented on it. You may revise any of the other four if you like, after receiving my comments. I’m happy to meet with you about the papers; email me for an appointment.

Paper 1. Due Thurs. Sept.6, noon.   
  
Paper 2: Due Thurs. Sept 20, noon.  
  
Paper 3: Due Tues. Oct. 9, noon.  
  
Paper 4: Due Tues. Oct. 30, noon.  
  
Paper 5: Final project. First draft due November 8.

4. In-class discussions—of assignments from readings and of final project.

5. Grade will be calculated from: 1) final examination (35%); 2) 4 brief papers (5% each); 3) longer paper (30%); 4) class participation (15%).

6. No late papers accepted without filing the illness form. Late papers will receive an F. Athletic commitments or other school related commitments are not valid reasons for late work, as you have advanced notice. The “rough draft” due Nov. 8 can be very rough, but it should show you have made considerable progress on the paper.

IV. Course goals

Improve skills in oral and written communication, by means of 1) written work; 2) revision of written work; 3) class discussion; 4) in class presentation.

Develop skills in reading, analyzing and understanding primary sources, especially those written in an earlier period when the assumptions and language may be unfamiliar. Build these skills through class readings, lecture, and discussion. The prompts for the short papers will ask the student to think carefully about the argument and evidence offered in the primary source readings, and the process of explaining the reading’s arguments will lead to a greater understanding of the text.

Learn to appreciate the importance of origin stories and the work they do in a culture. Respect the power of origin stories (often embedded in a religious framework), and get beyond seeing them as a reflection of ignorance, superstition, or antiquated thinking. Learn to recognize the sources of authority for such stories, and how those sources differ from the data called upon by scientists.

Become familiar with the history of evolutionary theory and the science of hereditary.

Examine the attempts of science to explain facts about society often relegated to religious thinking in other contexts, such as the explanation for poverty and social hierarchies, which we will explore via the history of eugenics and evolutionary psychology.

Through a discussion of the Scopes Trial, the movie *Inherit the Wind*, and the modern creation science/intelligent design movement, become familiar with the modern debate over evolution and its place in the high schools, a debate that is still active in American politics on the local, state, and federal levels.

# V. Syllabus

8/28 Introduction

8/30 The Importance of Origin Stories

Reading: Stephen J. Gould, “The Creation Myths of Cooperstown,” in his *Bully for Brontosaurus* (New York, 1991), 42-58; Tony Horwitz, *A Voyage Long and Strange* (New York: Henry Holt, 2008), 165-175; A. Harmon, “Tribe Wins Fight to Limit Research on its DNA,” *NYT*, 22 April 2010.

9/4 On Understanding Creation Myths

Reading: Mircea Eliade, *Myth and Reality* (New York: Harper Torchbooks, 1963),

1-53.

9/6 The Old Testament Creation Story

Reading: *Bible* (King James Version), *Genesis*, 1-12.

Paper no. 1 due: Using Eliade as background, use the *Genesis* text to explain two facets of the human situation (i.e. why are things the way they are?) Do you see Eliade’s claims about power at work here? (2-3 pp.)

9/11 18th Century World View

Reading: Bowler, *Evolution*, 27-47, 57-71

9/13 Biology and Geology, 1800-1859

Reading: Bowler, *Evolution*, pp. 84-95; Appleman, *Darwin*, pp. 39-52

9/18 Development of Darwin's Theory

Reading: Bowler, *Evolution*, pp. 141-176.

9/20 Darwin’s *Origin of Species*, *part* 1

Reading: Appleman, Darwin*,* 95-135.

Paper #2: Why did Darwin start the Origin of Species with a discussion of pigeon breeding? (2-3 pp.)

9/25 Darwin’s *Origin of Species*, part 2

Reading: Appleman, *Darwin*, 135-174.

9/27 Darwin’s Descent of Man, part 1

Reading: Appleman, *Darwin,* 175-222.

10/2 Eugenics, part 1

Reading: Paul, *Controlling Human Heredity*, pp. 1-49.

10/4 Eugenics, part 2

Reading: Paul, *Controlling Human Heredity*, pp. 50-114.

10/9 Modern “Eugenics”

Reading: Arthur L. Caplan, “What’s Morally Wrong with Eugenics?” and Timothy Murphy, “Commentary,” in Phillip R. Sloan, ed., *Controlling our Destinies: Historical, Philosophical, Ethical, and Theological Perspectives on the Human Genome Project* (Notre Dame, IN, 2000), 209-228; Erik Parens and Adrienne Asch, “The Disability Rights Critique of Prenatal Genetic Testing,” *Hastings Center Report*, 1999, *29*, S1-22.

Paper # 3: Imagine you (or your female partner) are pregnant. The obstetrician wants to test the fetus for hereditary traits common in your ethnic or age group(s), such as sickle cell disease, Down syndrome, cystic fibrosis, or Tay Sachs. Using the readings for today, describe whether you would allow the testing, and why. (2-3 pp).

10/11 and 10/16 No class (instructor out of town; fall break)

10/18 The Scopes Trial 1: The Law and the Textbook

Reading: George Hunter *A Civic Biology* (New York, 1914), 192-196, 249-265.

The Law itself: <http://www.law.umkc.edu/faculty/projects/ftrials/scopes/tennstat.htm>

Visit <http://www.law.umkc.edu/faculty/projects/ftrials/scopes/scopes.htm>; see trial video clips.

10/23 *Inherit the Wind*, part 1.

Reading: Larson, *Summer for the Gods*, 16-59.

10/25 *Inherit the Wind*, part 2

Reading: Larson, *Summer for the Gods*, 84-146.

10/30 *Inherit the Wind*, part 3

Reading, Larson, *Summer for the Gods*, 147-193.

Paper #4: During the Scopes trial (and in the movie), Clarence Darrow asks one of the high school students who learned about evolution from John Scopes whether the boy had murdered his parents, or the class had affected his baseball pitching arm. Write a paper explaining to a friend who hasn’t taken this course why these trial questions made sense and were not just silly. (2-3 pp.)

11/1 The Scopes Trial 2: The Legacy

Reading: Larson, *Summer for the Gods*, 197-266.

11/6 Catastrophes revisited

Readings: Stephen J. Gould, “Helpful Monsters,” *Hen’s Teeth and Horse’s Toes* (New York, 1983), 187-198; Gould, *Dinosaur in a Haystack* (New York, 1995), 147-158.

11/8 Evolutionary Psychology: The Problem of Altruism

Reading: David P. Barash, *Natural Selections*, New York, 2008, 111-135.

Draft of final project due.

11/13 “Scientific Creationism”

Readings: Michael Ruse, *Darwinism Defended*, pp. 285-329; Appleman,

*Darwin*, pp. 555-576.

11/15 Intelligent Design

Readings: Appleman, *Darwin*, pp. 534-541, 613-630; Larson, *Evolution*, New York, 2004, 247-263; Carl Zimmer, *Microcosm*, New York, 2008, 134-143; Stephen J. Gould, *Panda’s Thumb*, New York, 1980, 19-34.

Comments on final project draft returned.

11/20 and 11/22 Thanksgiving break

11/27 Student reports and class discussion

11/29 Student reports and class discussion

12/4 Student reports and class discussion

12/6 Student reports and class discussion.

Take home final exam handed out; due Sunday December 16, 5 pm.

Exams may be turned in via email (meh@duke.edu).