

HISC 114: The Darwinian Legacy

Spring 2012

Elena Aronova

Email: earonova@ucsd.edu

Lectures: MWF 10:00 - 10:50 (location: WLH 2207)

Office hours: F 11:00 – 13:00 (location: H&SS Room 6071)

Syllabus and Reading List

Charles Darwin's 1859 treatise, *On the Origin of Species by Means of Natural Selection*, proved to be one of the most influential books in the history of science. As anthropologist and social critic Ashley Montague stated, "next to the Bible, no work has been quite as influential, in virtually every aspect of human thought, as *The Origin of Species*" (*The Origin of Species*, 1958, Mentor edition, quote on the back cover). Indeed, Darwin's *Origin*, along with Darwin's subsequent writings, provided a coherent frame of reference for almost all fundamental aspects of human life: human origins and humanity's place in nature, the growth of knowledge, human emotions and temptations, sin and pain, evil and suffering. No one after 1859 could ignore Darwin's work and few areas of thought and culture remained immune to their influences. Darwin's theory was attacked, defended, debated, modified, ridiculed, interpreted and used not only by scientists, but also by philosophers, novelists, priests, feminists, and politicians of diverse social and political standing. In this class, we will examine Darwin's works both as scientific knowledge and as a current in the political thought, philosophy, social policy, and intellectual history, asking how has what might be called "The Darwinian Legacy" affected various domains of scientific knowledge, but also the way we think about who we are and who we might be? This course will concentrate on themes prominent between 1859 and the 1970s, but also highlight some of the more recent controversies.

Course Requirements and Assignments:

The course requirements for this class are as follows:

- (1) Class attendance and participation (20%). Part of this % of the grade will be allotted to students' engagement in the developing a collaborative oral report on the 2009 Darwin Celebrations, presented in the week 10. Attendance is required. You have one "free

miss,” but two or more unexcused absences will result in the diminution of this portion of your grade. The reading for each week should be done by the time of the first lecture in this week (with the exception of the first week).

- (2) Four-page take-home midterm assignment (30%). You will be asked to write two two-page essays (four pages total for the midterm assignment, double spaced), assessing one or two sources in relation to a specific question or topic. These are short assignments, so your writing should be focused and terse.
- (3) Six-page final paper (50 %). The final assignment will be graded on the basis of how well you integrate the readings from class, in order to compose an historical argument with a clear thesis and reliant on primary-source evidence.

Class Schedule and Course Reading:

Please purchase *Charles Darwin’s Evolutionary Writings*, edited with an Introduction and Notes by James Secord (Oxford World’s Classics edition, 2008 or 2010), at the UCSD bookstore.

Any other readings will be available on the class website (Blackboard or WebCT), either in PDF versions, or as links to online texts.

PART I: DARWIN AND DARWINISM IN THE VICTORIAN ERA

WEEK 1: Setting the Stage for Evolutionism: Biology and the Society Before Darwin (47 pages)

Reading: Robert Young, “Malthus and the Evolutionists: The Common Context of Biological and Social Theory,” *Past and Present*, 43 (1969), pp. 109-145, suggested pages: 109-125.

James Secord, *Victorian Sensation* (University of Chicago Press, 2000), chapter I (pp. 9-40).

04/2/12 (Monday): Introduction

04/4/12 (Wednesday): Biology and Society: The “Malthus Thesis”

04/6/12 (Friday): The French Revolution and J.-B. Lamarck’s Legacy(ies)

WEEK 2: Darwin’s Theory of Evolution: Natural and Sexual Selection (77 pages)

Reading: James Secord, “Introduction,” in *Charles Darwin’s Evolutionary Writings*, pp. vii-xxxvii.

Primary sources: Charles Darwin, *The Journal of Researches*, Chapter XVII “Galapagos Archipelago,” in *Charles Darwin’s Evolutionary Writings* (pp. 39-66).

Charles Darwin, *On the Origin of Species*, Introduction and Chapter I, in *Charles Darwin’s Evolutionary Writings* (pp. 107-126).

04/9/12 (Monday): Charles Darwin: A Gentleman Naturalist

04/11/12 (Wednesday): Darwin’s *The Origin of Species* (1859)

04/13/12 (Friday): A Case of Simultaneous Discovery: Charles Darwin and Alfred Wallace

WEEK 3: **Response to Darwin in Victorian England and America** (60 pages)

Reading: John Beatty and Piers J. Hale, “*Water-Babies*: An Evolutionary Parable,” *Endeavour*, vol. 32, no. 4 (2008), pp. 141-146.

Peter Bowler, “The Specter of Darwinism: The Popular Image of Darwinism in Early Twentieth-Century Britain,” in *Darwinian Heresies*, ed. by Abigail Lustig, Robert J. Richards and Michael Ruse (Cambridge University Press, 2004), pp. 48-68.

Primary sources: Reviews and Responses to the *Origin of Species*, in *Charles Darwin’s Evolutionary Writings*, pp. 212-230.

Charles Kingsley, *The Water-Babies: A Fairy Tale for a Land-Baby* (1890), Chapter II (pp. 47-81: equivalent of ~15 standard pages).

04/16/12 (Monday): Dissemination of Darwin’s theory: “Darwinism”

04/18/12 (Wednesday): Popularizing evolutionary themes: Charles Kingsley’s evolutionary fairy tale

04/20/12 (Friday): Evolution and Religion: Victorian “evolutionary theism”

WEEK 4: **Race, Gender, and Evolution** (80 pages)

Reading: Douglas Lorimer, “Theoretical Racism in Late-Victorian Anthropology, 1870-1900,” *Victorian Studies*, vol. 32, no. 3 (1988), pp. 405-430.

Eveleen Richards, "Darwin and the Descent of Woman," in *The Wider Domain of Evolutionary Thought*, ed. by David Oldroyd and Ian Langman (Dordrecht: Reidel, 1983), pp. 57-111, suggested pages: 62-79 and 87-100

Primary sources: Charles Darwin, *The Descent of Man*, Chapter VII "On the Races of Man," in *Charles Darwin's Evolutionary Writings*, pp. 273-288.

Charlotte Perkins Gilman, *The Man-Made World: Or, Our Androcentric Culture* (New York, 1911), chapter III, "Health and Beauty", pp. 44-69 (equivalent of ~10 standard pages).

04/23/12 (Monday): Darwin's *The Descent of Man* (1871)

04/25/12 (Wednesday): Evolution and Race

04/27/12 (Friday): Evolution and Gender

WEEK 5: Darwinizing Politics: Right, Left or Neither? Social Darwinism (74 pages)

Reading: M.S. Helfand, "T.H. Huxley's 'Evolution and Ethics': The Politics of Evolution and the Evolution of Politics," *Victorian Studies*, vol. 20 (1977), pp. 159-177.

Primary sources: Thomas H. Huxley, "The Struggle for Existence in Human Society," essay in *Social Diseases and Worse Remedies* [1891], pp. 8-25

Petr Kropotkin, *Mutual Aid: A Factor in Evolution* (1902), "Introduction" (pp. i-xix) and Chapter I "Mutual Aid Among Animals" (pp. 1-16).

04/30/12 (Monday): The origins of Social Darwinism: Herbert Spencer

05/2/12 (Wednesday): Darwinism and Political Thought

05/4/12 (Friday): Evolutionary imagery in Victorian England: Victorian science fiction

- Take-home midterm: prompt will be made available and explained during the lecture on May 4, the midterm is **due in class on Monday, May 7**.

PART II: DARWINIAN LEGACY IN THE 20TH CENTURY

WEEK 6: **Genetics and Eugenics: Helping Hands for Evolution** (84 pages)

Reading: Robert Proctor, *Racial Hygiene: Medicine under the Nazis* (Harvard University Press, 1989), Chapter I “The Origins of Racial Hygiene,” pp. 10-45.

Mark B. Adams, Garland Allen, and Sheila Faith Weiss, “Human Heredity and Politics: A Comparative Institutional Study of the Eugenics Record Office at Cold Spring Harbor (United States), the Kaiser Wilhelm Institute for Anthropology, Human Heredity and Eugenics (Germany), and the Maxim Gorky Medical Genetics Institute (USSR),” *Osiris* 20 (2005), pp. 232-262.

Primary source: Francis Galton, *Hereditary Genius* (1869), introductory chapter (pp. 1-5) and “General Considerations” (pp. 363-376).

05/7/12 (Monday): The birth of genetics

➤ Take-home midterm is due in class

05/9/12 (Wednesday): Eugenics, human genetics and the improvement of human heredity

05/11/12 (Friday): Darwin 1909 Celebration: heralding the new, rigorous science of evolution

WEEK 7: **The Modern Synthesis: In Search of Unity** (83 pages)

Reading: William B. Provine, “Progress in Evolution and Meaning of Life,” in *Julian Huxley: Biologist and Statesman of Science*, ed. by C. Kenneth Waters and Albert Van Helden (Rice University Press, 1992), pp. 165-180.

John Beatty, “Dobzhansky and the Biology of Democracy: The Moral and Political Significance of Genetic Variation,” in *The Evolution of Theodosius Dobzhansky: Essays on His Life and Thought in Russia and America*, ed. by Mark B. Adams (Princeton University Press, 1994), pp. 195-216.

Primary sources: Julian Huxley, *Evolution: the Modern Synthesis* (1942), Chapter X “Evolutionary Progress,” pp. 556-578.

Theodosius Dobzhansky, *Genetics and the Origins of Species* (1937), Chapter I
“Organic Diversity,” pp. 3-18.

05/14/12 (Monday): Disunity in biology

05/16/12 (Wednesday): The Modern Synthesis: mathematics and biology

05/18/12 (Friday): The “unifiers”: Th. Dobzhansky and J. Huxley

WEEK 8: Extension of the evolutionary synthesis in the 1960s: “Evolution From Molecules to Men” (52 pages)

Reading: Michael Ruse, “Darwin and Philosophy Today,” in *The Wider Domain of Evolutionary Thought*, ed. by David Oldroyd and Ian Langman (Dordrecht: Reidel, 1983), pp. 133-158.

Elena Aronova, “Karl Popper and Lamarckism,” *Biological Theory* vol. 2, no. 1 (2007), pp. 37-51.

Primary source: Niels K. Jerne, “The Natural Selection Theory of Antibody Formation: Ten Years Later,” in *Phage and the Origins of Molecular Biology*, ed. by John Cairns, Gunther S. Stent, James D. Watson (Cold Spring Harbor, NY: Cold Spring Harbor Laboratory Press, 1966), pp. 301-312.

05/21/12 (Monday): Molecular Darwinism

05/23/12 (Wednesday): Darwinism and philosophy

05/25/12 (Friday): Popularization of the evolutionary themes in the 1960s: from 1959 Darwin celebrations to evolution in science fiction

WEEK 9: The Sociobiology Debate (80 pages)

Reading: Ullica Segerstrale, *Defenders of the Truth: The Sociobiology Debate* (2001), chapters 2 and 3, pp. 13-51.

Micjael Yudell and Rob Desalle, “Essay Review: Sociobiology: Twenty-Five Years Later,” *Journal of the History of Biology* 33(2000), pp. 577-584.

Primary source: E.O. Wilson, *Sociobiology: The New Synthesis* (1975), Chapter 1: “The Morality of the Gene” and Chapter 2 “Elementary Concepts of Sociobiology,” pp. 3-31.

05/28/12 (Monday): no class, Memorial Day

05/30/12 (Wednesday): The politics of the sociobiology debate

06/1/12 (Friday): The science of “human nature” in the 1960s: issues of race and gender in the wake of the evolutionary synthesis

WEEK 10: **Contemporary Issues**

06/4/12 (Monday): TBA

06/6/12 (Wednesday): Guest lecture by Professor Rafael Núñez (UCSD Dept. of Cognitive Science) -- **To be confirmed**

06/8/12: (Friday): 2009 Darwin Celebration: Students reports and discussion

Reading: TBA