

Interdepartmental (L&S) 102, section 2:
Making Meaning in an Evolutionary World
Fall 2007

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Office hours: Thursdays 1:20-3:15; after class on Mondays; and by appointment.

Darwin's theory of evolution challenged many beliefs when it appeared in 1859. For many of his contemporaries (as for many people since then), a particularly difficult implication of his theory was that nature had to be understood on its own terms, without recourse to godly intervention, and without hope of Christian spiritual redemption. How, then, was the meaning of nature, of life (and death), and of human existence, to be understood anew, if one accepted evolution? This FIG seminar considers this problem, especially in the contexts of Britain, the U. S., and Germany, in the century following the publication of the *Origin of Species*.

In the core seminar, we will examine historical efforts to draw meaning from nature when evolution was accepted as a fact. We begin in Unit I by considering Darwin's own intellectual development, the role of morality in his theory, and the reactions by some prominent readers to his theory. Unit II examines the late nineteenth-century controversies surrounding idea of a human moral nature based in biology, with special attention to T. H. Huxley, Ernst Haeckel, and Friedrich Nietzsche. Unit III concentrates on the search for a naturalized aesthetics as well as artistic expressions of evolution (including the visual arts and poetry), focusing on Haeckel, Nietzsche, and Mathilde Blind. Unit IV considers eugenics movements in Germany, the U.S., and England as continuations of evolutionary thinking in relation to the molding of humanity's future.

Required readings:

For purchase at University Book Store:

Jane Maienschein and Michael Ruse, *Biology and the Foundation of Ethics* (Cambridge U. Press, 1999) (M&R)

Charles Darwin, *On Evolution: The Development of the Theory of Natural Selection*, ed. Thomas F. Glick and David Kohn. (Indianapolis: Hackett Pub., 1996) (G&K)

For purchase at History of Science Department, 7143 Social Science:

Course Reader (Course readers are NOT RETURNABLE. Once you buy one, it's yours.)

A copy of each of the above is on reserve at College Library. Note that some readings (not otherwise available) are on reserve at Kohler Art Library.

Grading:

Darwin correspondence analysis (2 pages) (due 9/26): 10%

Two reflective papers (3-4 pages) (due 10/24, 12/12): 10% each

Analytical paper on evolutionary art and poetry (4-6 pages) (due 11/21): 20%

Final paper (4-6 pages) (due 9 a.m., 12/18): 20%

Class participation, including informal written responses to study questions: 30%

Schedule of Topics:

*Readings marked with * are in the reader. Italicized questions form the general basis for discussion and reading responses.

W 9/5: Course Introduction

I. Creating the Darwinian Context

M 9/10: Darwin's evolution: background and early biography

G&K, Introduction, xi-xvii

Robert J. Richards, "Darwin's Romantic Biology," in M&R, 113-141

W 9/12: Discussion of the development of Darwin's theory

What issues was Darwin trying to work out in his early writings? What is the role of humans and of morality in his intellectual probing? How can we see his evolutionism developing? How does this connect with what you've been learning in Geol 110?

All readings in G&K:

Journal of Researches, 1-20;

Notebooks: Intro, 46-49, Notebook B, 51-68, Notebook M, 76-81;

Lamarck Marginalia, 82-86;

1844 Essay: intro, 87-89.

M 9/17: The Argument of the *Origin*

What is the principle of divergence? Pay particular attention to the branching tree diagram and the discussion surrounding it. What part does it play in Darwin's argument?

G&K, 127-130, 150-155, 156-215

W 9/19: Discussion of *Origin* as an argument

*How did Darwin write the **Origin** to persuade his audience of the truth of his theory? What argumentative strategies and rhetorical devices can you find that might have made the theory plausible—and perhaps even palatable—to his audience?*

Further discussion of reading assigned for Monday

Receive assignment on *Re: Design* and correspondence in class.

M 9/24: Darwin in his Social and Cultural Context

*How did Asa Gray's and Adam Sedgwick's religious and philosophical views affect their responses to the **Origin**?*

**Re:Design*. Adaptation of the Correspondence of Charles Darwin, Asa Gray, and others, by Craig Baxter, as performed 25 March 2007. (Read all.)

*Asa Gray, "Darwin and his Reviewers: Natural Selection and Natural Theology, Part III: Natural Selection not Inconsistent with natural Theology." *Atlantic Monthly*, October 1860, pp. 412-419. Reprinted in Asa Gray, *Darwiniana*, ed. A. Hunter Dupree (Cambridge: Harvard/Belknap, 1963), pp. 118-123.

*Adam Sedgwick, "Objections to Mr. Darwin's Theory of the Origin of Species," *The Spectator*, March 24/April 7, 1860. Reprinted in *Darwin and his Critics*, ed. David Hull (Chicago: University of Chicago Press, 1973)

W 9/26: Continue Discussion of Darwin's Context and Reception

Exercise on *Re-Design* and correspondence due.

Play Reading and Dessert at 7:30 pm, Prof. Nyhart's house, 16 N. Roby Rd.

II. The Natural (?)/Human(?) Basis of Morality

M 10/1: Human Evolution and Morality

According to Darwin, what is the basis of morality?

Darwin, *Descent of Man* excerpts, G&K, 240-260;

Richards, "Darwin's Romantic Biology," in M&R, 135-148

W 10/3: Against Evolutionary Ethics: T. H. Huxley

According to Huxley and Wallace, what's wrong with a naturalistic morality based in evolution?

*Paul Farber, *The Temptations of Evolutionary Ethics* (Berkeley: University of California Press, 1994), 58-78.

*T. H. Huxley, "Evolution and Ethics: Prolegomena" (1894) in *idem, Evolution and Ethics and other Essays* (New York: Appleton, 1896), 1-45.

FIELD TRIP to Field Museum, Chicago, Saturday 10/6, to see the Darwin traveling exhibit.

M 10/8: Ernst Haeckel's Monistic "Darwinism"

How was Haeckel's evolutionism like Darwin's? How was it different?

Olaf Breidbach, *Visions of Nature: The Art and Science of Ernst Haeckel* (Munich/New York: Prestel, 2006) [Kohler Art Library Reserves], 75-103, 195-203, 245-251

*Mario di Gregorio, *From Here to Eternity: Ernst Haeckel and Scientific Faith* (Goettingen: Vandenhoeck & Ruprecht, 2005), 86-98.

*Haeckel, *The History of Creation*, (orig. 1868), trans. E. Ray Lankester, (New York: Appleton, 1874/1887), 1-23.

[view *Proteus*?]

W 10/10: Monism

What are the basic elements of Haeckel's monism? What sort of moral order might be derived from it?

*Haeckel, *Monism as Connecting Religion and Science: The Confession of Faith of a Man of Science* (tr. J. Gilchrist), (London: Adam and Charles Black, 1894, digitized by Lee Dawei, Thomas Berger and Distributed Proofreaders).

M 10/15: Nietzsche and Darwin

Friedrich Nietzsche seems to have hated Darwin's work. Yet he is often considered, along with Darwin, to be one of those who brought about (or at least represented) a fundamental change in European ideas of morality in directions deeply compatible with Darwin's work. What elements of Nietzsche's writing might have reinforced "Darwinian" ideas? What took him in a different direction?

Jean Gayon, "Nietzsche and Darwin," 154-197 in M&R

*Friedrich Nietzsche, *The Will to Power*, §684-687, tr. Walter Kaufmann and R. J. Hollingdale, ed. Walter Kaufmann (New York: Random House, 1967), 361-366

W 10/17: Nietzsche, the Overman (Superman), and Moral Relativism

What did Nietzsche advocate? Why might the idea of going "beyond good and evil" have been viewed as liberating by some and dangerous by others? What is Weikart's take on this?

*Friedrich Nietzsche, "Thus Spake Zarathustra" (1883-92), (tr. Thomas Common) (e-Resource), "Introduction" by Elisabeth Foerster-Nietzsche (1905), "Zarathustra's Prologue," Sections 21 and 22, all in Part I (1883) (28 pages)

*Nietzsche, *Beyond Good and Evil*, in *The Basic Writings of Nietzsche*, transl. and ed. Walter Kaufmann (New York: Modern Library, 1966), 287-308.

*Richard Weikart, *From Darwin to Hitler: Evolutionary Ethics, Eugenics, and Racism in Germany*, (New York: Palgrave Macmillan, 2004), 43-57, 245.

M 10/22: Does Nature Choose For Us? Freedom and Determinism

Compare how the issues about freedom and determinism with respect to moral action were understood among Germans and Americans.

*Richard Weikart, *From Darwin to Hitler*, 21-29, 240-242.

*Marga Vicedo, "The Laws of Inheritance and the Rules of Morality: Early Geneticists on Evolution and Ethics," 225-257 in M&R.

W 10/24: Mid-term Discussion

Mid-semester reflective paper due: Compare some aspect of what you've been learning in Philosophy 101 and in this class, especially about the Moral Life. You might consider how the evolutionary context made the questions about morality and their answers different than earlier, and how not. Or you might analyze the different approaches to thinking about morality—historical and philosophical—taken in the two courses. Which appeals to you and why?

III. Naturalizing Aesthetics, Aestheticizing Nature

M 10/29: Physiological aesthetics

Where does the sense of beauty come from, according to Nietzsche? How does this compare to what you're learning in Phil. 101 about the aesthetic life?

*Gregory Moore, "Art and Evolution: Nietzsche's Physiological Aesthetics," *British Journal for the History of Philosophy*, February 2002, 10(1): 109-126

Grant Allen, *Physiological Aesthetics* [selections TBD]

W 10/31: Ernst Haeckel's Visual Science and Fraud

How are we to understand Haeckel's schematized nature? Was his work "fraudulent"? How has the fraud argument been used against evolution?

Olaf Breidbach, *Visions of Nature: The Art and Science of Ernst Haeckel*, [Kohler Art Library Reserves], pp.105-165

*Nick Hopwood, "Pictures of Evolution and Charges of Fraud: Ernst Haeckel's Embryological Illustrations," *Isis*, June 2006, 97: 260-301 [assignment continues]

Browse some creationist websites; try Googling “Haeckel” and “fraud.” What makes these arguments powerful? Flawed?

M 11/5: Monism and Modern Art

What trends did Haeckel pick up on in modern art? What aspects of Haeckel’s thought did artists pick up on?

Breidbach (Art Library reserve), 229-243, 253-275

*Daniel Gasman, “Haeckel’s Religious Monism: Its Cultural Impact,” in idem, *Haeckel’s Monism and the Birth of Fascist Ideology* (NY: Peter Lang, 1998), 51-100

W 11/7: Chazen Art Gallery Tour? Possible art history guest lecture

*Lynn Gamwell, *Exploring the Invisible* (2002), 77-88, 93-109, 121-127 [Kohler Art Library Reserves]

M 11/12: Mathilde Blind’s Rapturous Evolutionism (possible guest lecture)

*Mathilde Blind, “Ascent of Man” (1889), Part I (3-26), e-Resource from Victorian Women Writers Project, Indiana University.

-read *Oxford Dictionary of National Biography* article on Blind (online—go to E-Resources, find *Oxford Dictionary of National Biography*, enter “Mathilde Blind” in person box.)

W 11/14: Blind, “Ascent of Man,” cont.

What makes Blind’s poem evolutionary? How should we understand her view of religion? How does she use poetry to bring meaning to her modern world?

*Mathilde Blind, “Ascent of Man,” Parts II and III (26-47).

*Rudy Jason, “Rapturous Forms: Mathilde Blind’s Darwinian Poetics,” *Victorian Literature and Culture*, 34:2, 2006, 443-59

M 11/19: Wrap-up discussion of Blind in relation to Darwin, Haeckel, Nietzsche.

What similarities and differences can you find in their views of nature? What are Blind’s contributions to the cultural interpretation and development of evolution? What difference might it make that she was a woman?

W 11/21: Discussion of common themes in evolutionary art and poetry

Paper due: Common themes in evolutionary art and poetry
[Thanksgiving 11/22]

IV. Evolution, Ethics, and Aesthetics in Action: Eugenics

M 11/26: German Eugenics

According to Weikart, how did Darwinism contribute to eugenics in Germany? According to Weingart, how did eugenicists adapt themselves to the changing political situation in 1930s Germany? What links might we draw between their two arguments?

*Richard Weikart, *From Darwin to Hitler*, pp. 1-17, 235-240

*Peter Weingart, “German Eugenics between Science and Politics,” *Osiris*, 2nd ser.,

1989, 5: 260-282

[to be posted online: Sander Gliboff, H-Net review of Weikart's book]

W 11/28: International Eugenics

What were the problems to which eugenics provided the solutions in the early twentieth century? Do similar social, political, and moral issues exist now with regard to genetic engineering, therapy, and identification? (Think about G110.) What's the same now, what's different?

*Diane Paul, "Eugenic Solutions" in her *Controlling Human Heredity: 1865 to the Present* (Atlantic Highlands, NJ: Humanities Press, 1995), 72-96

View *Homo Sapiens 1900* (in class)

M 12/3: Julian Huxley and Reform Eugenics

How was reform eugenics different from earlier kinds of eugenics?

*Garland Allen, "Julian Huxley and the Eugenical View of Human Evolution," in *Julian Huxley: Biologist and Statesman of Science*, ed. C. Kenneth Waters and Albert Van Helden (Houston: Rice University Press, 1992), 193-222

*Julian Huxley, "Man and his heredity," pp. 76-124 in idem, *What Dare I Think? The Challenge of Modern Science to Human Action and Belief* (New York: Harper, 1931)

W 12/5: Julian Huxley, Progressive Evolution, and Evolutionary Humanism

How were Huxley's progressive evolutionary ideas and evolutionary humanism intertwined? How were these in turn connected to his reform eugenics? What might be the appeals of "reform eugenics"? What are its down-sides?

*Michael Ruse, "Evolutionary Ethics in the Twentieth Century: Julian Sorrell Huxley and George Gaylord Simpson," in M&R, 198-224

*Julian Huxley, "Man's Place and Role in Nature," in idem, *New Bottles for New Wine* (London: Chatto & Windus, 1959), 41-60

M 12/10: Wrap-up: Collective review of the different ways of making meaning in an evolutionary world.

W 12/12: Personal reflections paper due: Some options: What approach to "making meaning" in an evolutionary world do you find most appealing, and why? What things that you have learned from this and your other FIG courses would you want to wrap into your personal world-view?

Final essay, due at 9 a.m. Tuesday, 12/18 (may be handed in earlier). 3 choices:

- 1) Is "Darwin to Hitler" a defensible argument? Is it a persuasive one?
- 2) From Darwin/T. H. Huxley to Julian Huxley: What changed? What stayed the same? Why?
- 3) Write your own question. This must be cleared with me by Monday 12/10.