

College of William & Mary
Spring 2016

Darwinian Evolution in Politics & Society

Prof. Maurits van der Veen
Prof. Helen Murphy

Class

TTh 2:00-3:20pm
Location: Morton 303
Office hours: Wed. 2-4pm (MvdV)

Office

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Course Description

Darwin's theory of evolution by natural selection has had an enormous impact in the biological sciences, but also in the wider world. The reverberations of the publication of *On the Origin of Species* can still be felt more than 150 years later. We will examine responses to evolution by natural selection within biology, the social sciences, and among the public at large. We will focus on works by the original authors, rather than later summaries or analyses, so we can get a better feeling for contemporary reactions to Darwin, as well as insight into the way scholars in other disciplines have been inspired by Darwin's theories.

In particular, we will review the scientific building blocks of Darwin's theory and the modern evolutionary synthesis. We will then consider the impact of these theoretical insights on nineteenth-century social science (social Darwinism, eugenics, etc.), Darwinian influences on present-day political science, economics, sociology and psychology, and of course the 150-year old struggle between Darwinism and creationism.

As we shall see, the elegance and simplicity of Darwin's theory has inspired many theoretical innovations in unrelated disciplines, some with immense social impact. To give just two examples: the notion of "survival of the fittest" was used an argument for empire-building in the nineteenth century, and social Darwinism has often been used as an argument against caring for society's poor. We cannot fully understand the successes and failures of such ideas without explicitly examining their connection to Darwin's theory and its status within the biological sciences.

Course Goals

The goal of the course is fourfold. First, we will learn about the biological building blocks of evolutionary theory. Second, we will see how these building blocks have been applied (and sometimes misapplied) in other disciplines and in public debates. Third, we will gain insights into the development of scientific knowledge: How does the scientific

method work? How does knowledge accumulate (or not) over time? And how important is empirical evidence in all this? Fourth, we will continue the lifelong process of learning to express ideas through the written word and oral communication.

Course Requirements and Assignments

This is a seminar, so you must do all the reading ahead of time and be prepared to discuss it in class. The more you have thought about the readings and their implications, the more interesting and successful our class discussions will be. You are required to submit an informal response to the readings (key points made in the readings, interesting quotations, questions you have) to prof. van der Veen no later than 9am on the day of class (by email).

A portion of most class sessions will be devoted to building communication skills. Among others, we will do some writing and presentation exercises, and learn about the resources available at the library.

There will be three written assignments, two of which also feature a presentation component:

1. A short paper discussing an example in the media from the past 5 years in which Darwinian evolution is misrepresented (2-3 pages), and a brief in-class presentation (Powerpoint or similar) on the same topic.
2. A book review of a book on some aspect of the interaction between Darwinian evolution and the social sciences (5-6 pages).
3. A research paper on some issue covered in the course (approx. 15 pages), and an in-class presentation of your argument & findings.

You are required to hand in a draft of all writing assignments. Failure to submit a draft will result in an automatic deduction of one letter grade, as will each day the final assignment is late.

Grades

The grade breakdown for the class is:

25% participation (this includes written discussion points and in-class participation)

15% assignment on misrepresentation of evolution

20% book review

40% final paper

Attendance

Attendance is mandatory. Three unexcused absences will result in a decrease of the final grade by one full letter grade. Excused absences include those with appropriate documentation and those arranged with one of us. You need to let one of us know ahead of time if you cannot make a class! Similarly, if you need an extension on your written assignments, let one of us know in advance. Assuming you have good reasons for absence or extension requests, we are likely to be accommodating.

Additional Policies & Comments

Since this is a seminar class, it is important that we all feel comfortable participating. Remember to help make the atmosphere one of mutual respect in which all voices and ideas can be heard.

We take violations of academic honesty very seriously. All academic work must meet the standards set out in the Honor Code. In particular, if you commit plagiarism on a written assignment and we discover it, we will report the violation to the Dean's office, with all the potential repercussions that implies. The key point is that the work you submit must be your own — not that of a fellow student, nor that of someone whose work you found in the library or online. An important goal of this course is to help you improve your writing skills; we do not expect the first draft of any assignment to be perfect, but we do expect it to be yours!

Prof. van der Veen's office hours are Wednesdays 2-4pm. Please do stop by if you have any questions on the reading material, the writing assignments, or the course in general. If you need to reach either of us to make an appointment, just email or see us before or after class.

Texts and Other Readings

There is one required text for the course, available at the W&M Bookstore:
Coyne, Jerry. 2009. *Why Evolution is True*. New York: Viking.

All additional readings are available online, on the Blackboard site for the course, or through the electronic journals feature of the W&M library website.

For our writing exercises and discussions, we will be relying heavily on the material in the following book:

Booth, Wayne C., Gregory G. Colomb, and Joseph M. Williams. 2008. *The Craft of Research*, 3rd. ed. Chicago, IL: University of Chicago Press.

You are not required to buy this title; you can access it online through the Swem website. However, it is not an expensive book to buy, and you may get more from it if you're able to carry it around and mark it up, so we recommend you consider buying it.

Calendar

— Check Blackboard for selections to read from works marked with an asterisk (*) —

I. The “discovery” of evolution

Thu. Jan. 21 *Introduction; Darwin in the media*

Tue. Jan. 26 *Before Darwin: Biology*

Writing for an audience

* Paley, William. 1802. *Natural Theology*.

* Lamarck, Jean-Baptiste. 1809. *Philosophie zoologique*. (In translation).

Thu. Jan. 28 *Before Darwin: Social sciences*

Writing: editing for content & style

* Malthus, Thomas R. 1798. *An essay on the principles of population*.

Spencer, Herbert. 1852 & 1864.

* “A theory of population, deduced from the general law of animal fertility.”

* “The development hypothesis” *The Leader*, March 20, 1852, pp. 280-281.

* *Principles of Biology*. Part III: The evolution of life.

Ch. 12 “Indirect equilibration.”

Tue. Feb. 2 *Darwin: On the Origin of Species (I)*

19th-century scientific writing

Darwin, Charles. 1859. *On the origin of species* (first edition).

Introduction & chapters 1-2.

Thu. Feb. 4 *Darwin: On the Origin of Species (II)*

Library: rare books

Darwin, Charles. 1859. *On the origin of species* (first edition).

Chapters 3-4, 14.

II. Early reactions in the social sciences

Tue. Feb. 9 *Social Darwinism and the origins of eugenics*

Draft 1 due

Sample presentation

Galton, Francis. 1865. “Hereditary Talent and Character.” *Macmillan’s Magazine*, 12: 157-166, 318-327.

Greg, William R. 1868. “On the failure of ‘natural selection’ in the case of man.”

Fraser’s Magazine, Sept. pp. 353-362.

Recommended

Paul, Diane B. 2006. “Darwin, social Darwinism and eugenics.”

Chapter 9 in the *Cambridge Companion to Darwin*.

Thu. Feb. 11 ***Social Darwinism in Darwin and beyond***

Writing: common challenges

- * Darwin, Charles. 1871. *The Descent of Man*. Chapter V: "On the development of the intellectual and moral faculties during primeval and civilised times," pp. 158-184, and XXI "General summary and conclusion", pp. 402-405.
 - * Pearson, Karl. *National life from the standpoint of science*. 1900.
 - * Sumner, William Graham. "Sociology", in *War and other essays*. 1911.
- Recommended*
- * Kidd, Benjamin. *Social Evolution*. 1894. Chapter 9 & concluding remarks

Tue. Feb. 16 ***Imperialism and war***

Paper 1 due

Presentations

- * Strong, Josiah. 1885. *Our country: Its possible future and its present crisis*.
 - Ovington, C.O. 1900. "War and evolution." *The Westminster Review*, 153: 411-420.
 - Kellogg, Vernon. 1918. "War for evolution's sake." *Unpopular Review* 10: 146-159.
- Recommended*
- Burton, David H. 1965. "Theodore Roosevelt's Social Darwinism and his views on imperialism." *Journal of the History of Ideas* 26(1):103-118.

Thu. Feb. 18 ***Race and gender***

Presentations

- Huxley, Thomas Henry. 1865. "Emancipation, black and white." *The Reader*, 20 May.
- * Ward, Lester Frank. 1914. *Pure Sociology*. Excerpts on marriage & male sexual selection.
- * Grant, Madison. 1918. *The passing of the great race*. Excerpts.

Tue. Feb. 23 ***Eugenics revisited***

Presentations

- * Sanger, Margaret. 1919. "Birth Control and Racial Betterment." *Birth Control Review*
 - * Pearl, Raymond. 1927. "The biology of superiority." *The American Mercury*.
 - * Buck v. Bell, 1927 Supreme Court case. Selected documents.
(including governor Warner's 2002 apology for Virginia's eugenics law)
 - Muller, H.J. 1933. "The dominance of economics over eugenics." *The Scientific Monthly*, 37(1): 40-47.
- Recommended*
- Brown, Frank Overton, Jr. 2013. "Three generations." *Virginia Lawyer* 62: June/July: 26-32.

Thu. Feb. 25 ***The Scopes trial***

Book review draft due

In-class film: *Inherit the Wind*

* Moran, Jeffrey P. 2002. *The Scopes trial: A brief history with documents*. New York, NY: Bedford / St. Martin's.

III. The science of evolution

Tue. Mar. 1 ***Why evolution is true, part 1***

Coyne. *Why Evolution is True*. Introduction & chapters 1-4.
Recommended

Mayr, Ernst, and William B. Provine. 1981. "The evolutionary synthesis."
Bulletin of the American Academy of Arts and Sciences 34(8):17-32.

Thu. Mar. 3 ***Why evolution is true, part 2***

Book review due

Coyne. *Why Evolution is True*. Chapters 5-9.

Provine, William B. 2001. *The theoretical origins of population genetics*.
Afterword (pp. 197-205).

March 8 & 10: Spring Break

IV. Darwinism and the modern social sciences

Tue. Mar. 15 ***Game theory***

Selecting a paper topic

Maynard Smith, J., and G.R. Price. 1973. "The logic of animal conflict." *Nature*
246: 15-18.

Axelrod, Robert. 1984. *The evolution of cooperation*. Chapters 1-2, 9.

Thu. Mar. 17 ***Sociobiology & sociology***

Library: research tools

Wilson, Edward O. 1978. "Introduction: What is Sociobiology?" pp. 1-12 in
Michael S. Gregory, Anita Silvers, and Diane Sutch, eds. *Sociobiology
and Human Nature: An Interdisciplinary Critique and Defense*. San
Francisco, CA: Jossey-Bass.

Daly, M., & Wilson, M. (1999). Darwinism and the roots of machismo. *Scientific
American Presents*, 10(2), 8-14.

Van den Berghe, Pierre L. 1990. "Why most sociologists don't (and won't) think
evolutionarily." *Sociological Forum* 5: 173-185.

Tue. Mar. 22 *Evolutionary psychology and its discontents*

Bad *ad hoc* hypotheses

Schmitt, David P. 2014. "Evaluating evidence of mate preference adaptations: How do we really know what *Homo sapiens sapiens* really want?" pp. 3-39 in V.A. Weekes-Shackelford and T.K. Shackelford, eds. *Evolutionary perspectives on human sexual psychology and behavior*. New York: Springer.

Gottlieb, Anthony. 2012. "It ain't necessarily so: How much do evolutionary stories reveal about the mind?" *The New Yorker*.

* Bering, Jesse. "Darwin's Rape Whistle". Slate.com January 13, 2011. plus a number of responses and counter-responses, all on Slate.

Recommended

Coyne, Jerry A. 2000. "Of vice and men: The fairy tales of evolutionary psychology." *The New Republic*.

Thu. Mar. 24 *Evolution and economics*

Writing: from topic to question

Readings TBD

Tue. Mar. 29 *Evolution and political science*

Research: finding & using sources

Readings TBD

VI. Public understandings of evolution today

Thu. Mar. 31 *Idiocracy*

Paper outline due

In-class film: *Idiocracy* (selections)

Tue. Apr. 5 *Creationism*

Writing: from question to thesis

* Field, Arthur N. 1971 [1941]. *Why colleges breed communists, or: The evolution hoax exposed*. Selections.

Williams, Robert Charles. 1983. "Scientific creationism: An exegesis for a religious doctrine." *American Anthropologist* 85(1): 92-102.

Moore, J.A. 1974. "Creationism in California." *Daedalus* 103(3):173-189.

* Creationism and U.S. politicians. Some selections.

Thu. Apr. 7 *Intelligent design*

Writing: claims and evidence

* Behe, Michael J. Some selections about "irreducible complexity."

Coyne, Jerry, "The Faith that Dare Not Speak Its Name: The Case Against Intelligent Design", *The New Republic*, Aug 2005.

Pennock, Robert T. "God of the gaps: The argument from ignorance and the limits of methodological naturalism." in *Scientists confront intelligent design and creationism*.

Recommended

Dawkins, Richard, "The Illusion of Design", *Natural History Magazine*, Nov 2005 <http://www.naturalhistorymag.com/features/101500/the-illusion-of-design>

Tue. Apr. 12 ***The Dover Trial***

In-class film: *Judgment day: Intelligent design on trial* (NOVA documentary)

* Kitzmiller v Dover Area School District (Dec. 2005) Selected documents.

Thu. Apr. 14 ***Public opinion on evolution***

Paper draft due

Communicating evidence visually

Miller, Jon D., Eugenie C. Scott, and Shinji Okamoto. 2006. "Public acceptance of evolution." *Science*, 313:765-766.

Plutzer, Eric, and Michael Berkman. 2008 "Evolution, creationism, and the teaching of human origins in schools." *Public Opinion Quarterly* 72(3):540-553.

* Recent polls on public opinion about evolution in the U.S. & elsewhere.

Tue. Apr. 19 ***Group selection and its discontents***

Sample presentation

Pinker, Steven. 2012. "The false allure of group selection," Edge.org

* Select responses to Pinker's essay, including Richerson, Peter J. 2012.

"Comment on Steven Pinker's essay "The false allure of group selection."

Recommended

Conradt, Larissa, and Christian List. 2009. "Group decisions in humans and animals: A survey." *Philosophical Transactions of the Royal Society B* 364: 719-742.

Thu. Apr. 21 ***Final presentations***

Tue. Apr. 26 ***Final presentations***

Thu. Apr. 28 ***Wrap-up***

Paper due