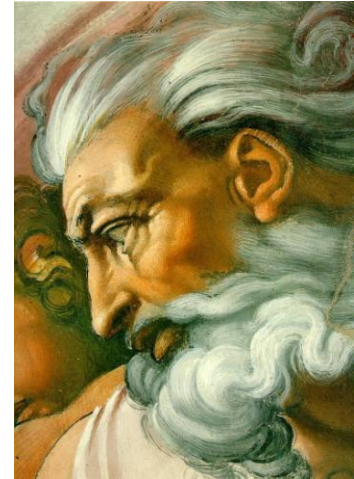
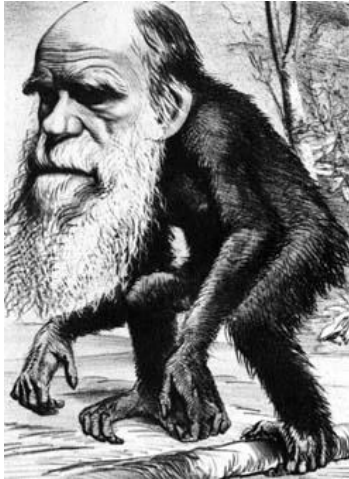


ANTHROPOLOGY, EVOLUTION AND CREATIONISM

FALL 2010



Professor: Robert McCarthy
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561-297-1355

Time: TTh 2 – 3:20 pm
Place: SO 300
Format: Lecture and discussion

Office hours: TTh 12 – 2 pm in SO 173

Course Objectives: Among industrialized nations, the United States is virtually alone in rejecting modern scientific explanations for the origin and evolution of life on this planet, even though these explanations form the basis for modern biology and science. This viewpoint is as much a social and political issue as it is a scientific or religious one. Richard Dawkins, in his book *The God Delusion*, writes that "The God of the Old Testament is arguably the most unpleasant character in all fiction: jealous and proud of it; a petty, unjust, unforgiving control-freak; a vindictive, bloodthirsty ethnic cleanser; a misogynistic, homophobic, racist, infanticidal, genocidal, filicidal, pestilential, megalomaniacal, sadomasochistic, capriciously malevolent bully." On the other end of the spectrum, John Oller, in his introduction to the 2nd edition of Henry Morris' *Biblical Basis for Modern Science* (p. 10), states that "... science, as practiced by persons of integrity has only one basis and that basis can only be found in the Judeo-Christian God who is never inconsistent with himself." In this course we will try to steer a middle course between these two opinions, critically evaluating the support for two different worldviews. In so doing we will examine the social, political and scientific factors that inform our view of the world and our place in it.

Grading: You will be evaluated according to the following criteria: the results of two exams (25% each), four activities from the list below (10% each), and attendance (10%).

Possible Activities:

1. Go to a church or ministry. Write a report.
2. Go to a creation museum, and write a report about it.
3. Go to a museum exhibit about evolution. Write a report.
4. Write an editorial (either pro or con) in a newspaper. Look at the requirements for a letter to the *Sun-Sentinel*, *Palm Beach Post*, or *Miami Herald*, and write a short letter.
5. Write a blog entry about evolution or creationism.
6. Listen to “the preacher” for one hour, taking notes. Ask him about evolution.
7. Wear an evolution shirt for one day – write down what people say to you.
8. Listen to a Sunday morning radio show. Write a report.
9. Compare and contrast two creation myths, in detail.
10. Write a letter to your senator or congressman.
11. Observe chimpanzees for one hour. Write a short report – how are they like us? How are they different?
12. Interview 5 people about their beliefs. Write a brief report.

Required readings:

- Humes, Edward. 2007. *Monkey Girl: Evolution, Education, Religion, and the Battle for America’s Soul*. Harper Perennial, New York.
- Dawkins, Richard. 2009. *The Greatest Show on Earth: The Evidence for Evolution*. Free Press, New York.

Advice: There are two classes of reading in this course. The above-listed books are required reading. In addition, there will be several optional readings each week that you might want to peruse. These optional readings are available online, or will be provided by the instructor before class. To do well in this course you must keep up-to-date on the readings. Also, at the end of each class I may ask you to complete a short homework assignment – looking at a webpage, reading a small amount of information, etc. It is important that you complete these tasks, because they will form the basis for our discussion in the next class.

Disclaimer: Everyone has his or her own religious or spiritual convictions. In this course, we will be talking about controversial issues that may call into question your beliefs. It is very important that you understand that evolution and religion are not mutually exclusive ideas, and that it is not necessary to abandon one in favor of the other. Most importantly, this is a class about ideas, opinions and evidence, and it is expected that you maintain a civil manner in the classroom even if you disagree with other peoples’ views. Finally, we are having one discussion in class. Please refrain from having side conversations.

Other Rules:

Plagiarism (the copying of another’s work and passing it off as one’s own) will not be tolerated in any form.

Course Schedule

Week	Dates	Lecture	Due
1	8/24 – 26	Defining the Debate	
2	8/31 – 9/2	Genesis and Other Creation Myths	
3	9/7 - 9/9	A Short History of Creationism	ACTIVITY #1
4	9/14 - 9/16	Evidence for Evolution	
5	9/21 - 9/23	History of Evolutionary Thought	
6	9/28 - 9/30	Natural Selection and Other Mechanisms	ACTIVITY #2
7	10/5 - 10/7	Slow Time and Experimental Evidence	MIDTERM
8	10/12 – 14	Modern Creationism	
9	10/19 – 21	Policy and Politics	
10	10/26 – 28	The Wedge Strategy and Intelligent Design	ACTIVITY #3
11	11/2 – 4	Global Creationism	
12	11/9 – 11	Rhetoric and Humor	
13	11/16 - 18	Human Evolution	ACTIVITY #4
14	11/23 – 25	Current Challenges	FINAL
15	11/30 – 12/2	The Case Against Creationism	

SUMMARIES AND READINGS

Week 1: Defining the Debate

We start out by defining our terms – what is **evolution**? What is **creationism**? What is **intelligent design**? What is the official position of each faith on evolutionary theory?

Required Readings: **Dawkins Chapter 1.**

Additional Readings:

- “Truth Cannot Contradict Truth: Address of Pope John Paul II to the Pontifical Academy of Sciences,” October 22, 1996.
http://www.newadvent.org/library/docs_jp02tc.htm
- Dean, C. and Goodstein, L. 2005. Leading Cardinal Defines Church’s View on Evolution. *New York Times* July 9.
<http://www.nytimes.com/2005/07/09/science/09cardinal.html>
- National Center for Science Education. 2002. Statements from religious organizations.
http://www.ncseweb.org/resources/articles/7445_statements_from_religious_org_12_19_2002.asp

Week 2: Genesis and Other Creation Myths – “In the beginning was the word ...”

Giving equal time to creation and evolution in schools is problematic because it gives a special place to the Judeo-Christian creation myth, stymieing religious freedom. However, there are thousands of creation myths. This week, we will discuss the variety of creation myths in the world’s religions.

Movie: “The Power of Myth”

Required Readings:

- “Genesis.” King James Bible. Electronic Text Center, University of Virginia Library. Online at <http://etext.virginia.edu/toc/modeng/public/KjvGene.html>
- “Creation myth.” Online at http://en.wikipedia.org/wiki/Creation_myth

Week 3: A Short History of Creationism

Creationists often point to supposed problems with evolutionary theory to bolster their claims. Such arguments are often fallacious and easily countered, yet they still continue to proliferate. Here we discuss the most common arguments against evolution, tracing the history of each one.

1. The Earth is flat http://www.alaska.net/~clund/e_djublonskopf/Flatearthsociety.htm
2. The Earth is the center of the universe.
3. Matter and energy cannot be created – 2nd law of thermodynamics.
4. The Earth is young – ~6,000 years old.
5. There are no intermediate fossil forms.

6. Evolution occurs by means other than natural selection.
7. The eye and other structures are too complex to have evolved.
8. Scientists make mistakes.
9. Scientists disagree.

Movie: “What About God?” episode from PBS Evolution series.

Required Reading: **Humes Part 1.**

Additional Readings:

- The Creationists Ch. 10: John C. Whitcomb, Jr., Henry M. Morris, and *The Genesis Flood*
- The Creationists Ch. 11: The Creation Research Society

Week 4: Evidence for Evolution

Movie: “Great Transformations,” episode from PBS *Evolution* series

Required Readings: **Dawkins Chapters 2, 3, 6.**

Additional Readings:

- Keim, Brandon. 12 Elegant examples of evolution. Wired Science
<http://www.wired.com/wiredscience/2008/12/evolutionexampl/>
- Dobzhansky, Theodosius. 1973. *Nothing in Biology Makes Sense Except in the Light of Evolution*. Online at
http://www.pbs.org/wgbh/evolution/library/10/2/text_pop/1_102_01.html

Week 5: History of Evolutionary Thought – “Darwin’s Dangerous Idea”

Prior to 1859, scientists and philosophers theorized that evolution from one form into another occurred, but were unsure of the mechanism of such change.

Movie: “Darwin’s Dangerous Idea,” episode from PBS *Evolution* series

Required Readings: **Dawkins Chapters 2 and 3.**

Additional Readings:

- Darwin, Charles. 1859. Excerpts from *On the Origins of Species* ... Online at
<http://www.talkorigins.org/faqs/origin.html>
- Lucas, J.R. “Wilberforce and Huxley: A Legendary Encounter.” Online at
<http://users.ox.ac.uk/~jrlucas/legend.html>

Week 6: Natural Selection and Other Mechanisms of Evolution

Movie: “The Evolutionary Arms Race,” episode from PBS *Evolution* series

Required Reading: **Dawkins Chapters 2 and 3.**

Week 7: Slow Time and Experimental Evidence

The evidence for evolutionary change and an old world extends beyond the classic textbook examples. The earth is approximately 4.6 billion years old, and life on earth may be over four billion years old. There are many experimental examples of evolution occurring right “before our eyes.”

Required Reading: **Dawkins Chapters 4 and 5.**

Week 8: Modern Creationism – Creation “Science”

Required Reading: **Humes Part 2.**

Additional Readings:

- *The Creationists* Ch. 12: Creation Science and Scientific Creationism
- *The Creationists* Ch. 13: Deception and Discrimination
- *The Creationists* Ch. 14: Creation Research Institutes
- *The Creationists* Ch. 15: Creationism in the Churches

Week 9: Policy and Politics in the Evolution/Creation Debate – the legal side of things

It is currently illegal to teach creationism in public school science classes. Here we discuss the current politics behind the teaching of evolution and creationism in public schools, looking at several case studies.

Movie: “Inherit the Wind”

Required Reading: **Humes Part 3.**

Additional Readings:

- Matsumura, Molleen and Mead, Louise. 2007. 10 significant court decisions regarding evolution/creationism. National Center for Science Education online at http://www.ncseweb.org/resources/articles/5690_10_significant_court_decisions_2_1_5_2001.asp

Week 10: The Wedge Strategy and Intelligent Design – Creationism by any other name...

Movie: *Expelled: No Intelligence Allowed.*

Required Reading: **Review the Humes book.**

Additional Readings:

- Selections from Darwin, Charles. 1871. *The Descent of Man and Evolution in Relation to Sex.*
- *Darwin’s Black Box*
- Selections from Myers, P.Z. Online at <http://scienceblogs.com/pharyngula/>

- Coyne, Jerry A. 2005. The faith that dares not speak its name: The case against intelligent design. *The New Republic*, Aug. 22, pp. 21-33. Online at http://pondside.uchicago.edu/cluster/pdf/coyne/New_Republic_ID.pdf

Week 11: Global Creationism

Additional Reading:

- *The Creationists* Ch. 16: The Appeal of Creationism at Home and Abroad
- *The Creationists* Ch. 18: Creationism Goes Global

Week 12: Rhetoric, Humor and Propaganda in the Evolution/Creation Debate – how many scientists does it take to “prove” evolution?

Movie: We will be watching a selection of TV shows.

Readings:

- The Onion: “Intelligent Falling,” “NSF: Science Hard”

Week 13: Human Evolution – Yes, we evolved too

Movie: “Walking with Cavemen”

Required Reading: **Dawkins Chapter 7.**

Additional Reading:

- Jim Foley’s webpage online at <http://www.talkorigins.org/faqs/homs/index.html>

Week 14: Current Challenges – the state of the evolution/creation debate

Required Reading: **Dawkins Appendix.**

Week 15: The Case Against Creationism

Movie: “Flock of Dodos”