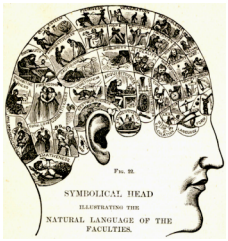
Psychology 410 – Evolutionary Psychology
Course Syllabus, Spring 2011


Charles Darwin



Special Design

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Hours: Mondays, 2-3 PM, Wednesdays, 10-11 AM; by appointment

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Class Stats. **Meeting times:** Tuesdays and Thursdays, 4 – 5:20 PM
Location: 123 Pacific
CRN: 36528
Credits: 4

Course overview. Evolutionary psychology is the application of evolutionary theory, first proposed by Charles Darwin, to the study of human behavior and the brain that generates our thoughts, feelings and actions. Evolutionary psychology is *not* a sub discipline within the field of psychology, like developmental or clinical psychology, but rather an *approach* to behavior that can be applied in psychology and, for that matter, in other disciplines like anthropology, economics and political science.

Evolutionary psychology provides a new, integrated approach to human behavior by attempting to explain how specialized mental (brain) mechanisms, designed by a long history of evolution by natural selection, guide our present-day behavior and help us solve the problems of daily life that affected our ancestors ability to survive and reproduce successfully. Some of these "problems" include expressing aggression, both within and between groups, identifying and attracting a suitable mate, rearing children successfully, and negotiating social relationships with both family and non-family members. In Psy 410, we will view the mind/brain as an evolved, adapted organ that has operated like other physical and behavioral traits in the service of day-to-day survival and successful reproduction. We will use Darwin's theory of evolution by natural selection and sexual selection to frame our analysis of the thoughts, feelings and actions that seem to characterize humans around the world, including the variation in behavior that is associated with 'local' conditions.

Here are just a few examples of the kinds of questions that we will address from a functional or evolutionary perspective: (1) Why do we usually treat our close genetic relatives better than our distantly-related kin or nonkin? (2) Why do thoughts of incest elicit disgust in most people? (3) Why are parent-offspring relationships so intimate on the one hand and yet so divisive on the other? (4) Why is physical attractiveness in a potential mate more important to men than women and why is earning potential in a potential mate more important to women than men? (5) Why do people in all societies practice some form of religion? (6) Why was it so (relatively) easy for you to learn your first language and yet so difficult for you to learn to read?

Compared with other theory-based, scientific approaches to human behavior, evolutionary psychology is a young field of inquiry and includes an ever-increasing number of investigators. It is an exciting approach with both enthusiastic supporters *and* harsh critics. For example, Kenrick and Luce (2004) write, "The evolutionary perspective on psychology has the power to fundamentally change how you understand yourself … It is both illuminating and exciting. And once people get it –- that is, once they understand how to think in evolutionary terms – they never turn back." And here's a quote from a critic of the field: "Unfortunately, evolutionary psychologists routinely confuse theory and speculation. Unlike bones, behavior does not fossilize, and understanding its evolution often involves concocting stories that sound plausible but are hard to test." (Cohen 2004). Few people are neutral about their feelings regarding evolution psychology!

Class structure. During most of our class meetings, I will be lecturing and using an LCD projector and Powerpoint software to illustrate the points I want to make. The lecture notes (Powerpoint images) that I will use will be available to you on the course Web page via Blackboard (see "Blackboard course site" below). I **strongly** encourage you to download, print and bring copies of the lecture notes with you to each class meeting. Think of the images as a set of detailed lecture notes that you can annotate with your own thoughts during lectures without having to devote 75% of your mental energy to note taking.

I want to encourage your active participation in class, although I realize that class size will limit, to some degree, what we can do. Please ask questions, especially if what I have said is unclear, and please offer comments and counter-points to ideas and results that I present during lectures. I certainly prefer an active, engaged group of students to hearing myself drone on and on. ☺ My analysis of some topics in lectures like sex differences in behavior or the selfish nature of humans may be at odds with some of your own ideas or beliefs. If you are uncomfortable with some of what I present, I hope that you will speak up in a manner which is thoughtful and instructive for the class as a whole. And I am always willing to talk individually with you, especially if I have said something that rubs you the wrong way.

Prerequisites. You will benefit if you have already had some exposure to biological approaches to behavior and, especially, to modern evolutionary theory. However, I do not assume such exposure and in the initial set of lectures we will go over the conceptual and theoretical background that you need to understand the subsequent topics, which we will cover. And this material will be the focus of the first exam (see below).

Required material. The *required* book for this course is a paperback textbook, *Evolutionary Psychology, A Critical Introduction* by Christopher Badcock, which is available at the UO Book Store, 13th Avenue @ Kincaid Street. There has been a run on textbooks and if the book store cannot acquire additional copies of the book then the initial reading assignments from the textbook will be made available to you on Blackboard. There is also a ***required*** electronic course pack (hereafter the "e-course pack") that will be available on our Blackboard course site (see next paragraph) and will include scholarly articles primarily from journals and books.

Blackboard course site. In Psy 410, we will make *extensive* use of Blackboard, which is a web-based course management application. I have created a Blackboard course site for Psy 410, and you will be using it as a regular part of the class. The course site will contain announcements, lecture notes (copies of overhead transparencies), assignments and their dues dates, and more. ***You should plan to visit our course site at least three times per week to stay abreast of class announcements and lecture notes***. *Hard copies of class materials like lecture notes, reading*

*assignments and exam study guides will **not** be handed out in class, and you will be expected to download these from on our Blackboard course site.* At the end of this syllabus, you will find a course site map that is designed to help you find documents on our Blackboard course site.

To use Blackboard, you will need an account, which has already been created for you **if** you have registered for Psy 410. To access our course site, launch your web browser (e.g. Internet Explorer, Firefox, Safari) and point it to …..

http://blackboard.uoregon.edu/

click on "User Login" and enter your UO email account login name and password. If you have more than one email account, check the UO's directory …

(http://duckweb.uoregon.edu/telecom/directory.html)

to see which one Blackboard 'expects' you to use or you will not be admitted to the course site. If you cannot login successfully by clicking on the "User Login" button, click on the "Help" button on the right side of the Blackboard homepage.

If you have problems getting started with Blackboard or using Blackboard along the way, you can get help at …

http://libweb.uoregon.edu/scis/blackboard/help/

Downloading documents from Blackboard. You will often want to download course documents such as a set of lecture notes or an assignment onto the computer on which you are working. To make downloading go as smoothly as possible, I will convert all the documents I produce to portable document format files (pdf files) before I place them on the course site. Any computer with Acrobat Reader software loaded on it will be able to access all the pdf files from our course site, and every UO student-accessible computer has Acrobat Reader on it. If you are using your own computer and do not have Acrobat Reader, you can download the application *for free* by launching your browser and pointing it to …

http://www.adobe.com/downloads/

If you encounter difficulties logging on to Blackboard or downloading documents, you should seek help from the Knight Library Information Technology Center (Second Floor, Knight Library, 346-1935) or the Science Library Information Technology Center (Science Library, Basement of Onyx, 346-1331).

Schedule of assignments, including readings. I do not want the timetable for class lectures and exams to be set in stone, which would require that we 'cover' a certain amount of material on a preset schedule. However, I will work hard to ensure that you know what's coming up in lectures so that you can complete reading assignments before topics are presented. I will also announce exam dates and due dates for other assignments well in advance of when they will occur. The absence of a set-in-stone calendar for the course means that you will have to stay focused and keep abreast of class materials, based on the information I provide at the beginning of each lecture and on our Blackboard course site.

Course work. Your grade will depend on how you perform on five required tasks.

(1) A mini-quiz will be given at the end of *each* class lecture. One multiple-choice question will be presented, based on material covered in "today's" lecture. There will be 12-15 mini-quizzes during the term, the best 10 of which will count toward your grade. This means that you can earn a *maximum of 10 points* for the mini-quizzes and that it is not critical for you to take every quiz.

(2) There will be a multiple-choice exam on the basics of natural selection theory, which will be given about three weeks into the term (April 14th or 19th) and be worth about 40 points.

(3) There will be a midterm exam (worth about 40 points) and **(4)** a final exam (worth about 55 points) in the course, both of which will comprise multiple-choice questions and a short-essay question. The midterm will occur on *about* May 5th and the final will occur during exam week on Monday, June 6th at 1 PM, as specified by the Registrar's Office.

(5) You will write a mini-literature review on a topic you choose from a list given to you. Your mini-review will comprise brief summaries of *five* journal articles each of which addresses your chosen topic. The length of each individual summary will be less than one page of double-spaced text. Some examples of potential topics include (a) kinship and child abuse, (b) male or female mate-choice criteria, (c) parent-offspring conflict and (d) sex differences in jealousy. This assignment will be due May 31st and worth 50 points.

Grading. Your final grade will be determined by the total number of points you accumulate via your performance on the five just-described tasks. There will **not** be any 'extra-credit' assignment by which you could augment your point total. I will **not** be assigning a predetermined number of As, Bs, and so forth so your grade is independent of other students' grades. The grading scale will be broken down **approximately** as follows:

A+ = 97-100%	B+ = 87-89%	C+ = 77-79%	D+ = 67-69%
A = 93-96%	B = 83-86%	C = 73-76%	D = 63-66%
A- = 90-92%	B- = 80-82%	C- = 70-72%	D- = 60-62%

Incomplete grades. A grade of I (incomplete) invites a host of problems for students and faculty alike, and I will not be giving I grades (or Y grades, no basis for grading) except when special circumstances warrant. Incompletes hang over the heads of students and faculty and limit students' abilities to focus fully on their courses following the term in which they received an incomplete. I will only award an I grade if you and I have discussed the special need for an I *before the final exam is given*. If we agree that an I grade is warranted, then we will specify the work that you must complete and the date by which it must be completed to change the grade of an I to the appropriate letter grade. This date will not be later than six weeks into the term after which you receive an I *whether or not you are enrolled that term*. If you choose not to meet with me to discuss your I grade or if your work is not completed by our agreed-upon date, a grade will be assigned based on the points you had earned when the class ended during the term you were enrolled. I understand that 'exceptional' events may warrant variation in my I-grade policy, so please talk with me if you find yourself thinking about requesting an incomplete grade and please do not wait until the last minute to do so.

Make-up exams, late assignments and 'special' circumstances. As a general rule, make-up exams will *not* be given. If something critical would prevent you from taking a scheduled exam, you must talk to me *at least one week in advance* of the relevant deadline. Written assignments turned in after a deadline, which will *always* be announced on the course web page, will have points taken off for lateness and an assignment completed well past a deadline may receive no points. If you have special needs related to exams, written assignments or lectures (e.g. you have a physical disability, a diagnosed learning disability, English is not your first language), please see me during the first or second week of the term so we can make appropriate arrangements, which I'll be happy to do. If you have a documented disability that will affect your classroom

performance, I need a letter to that effect from the Counselor for Students with Disabilities (164 Oregon Hall) so accommodations can be made for exams and other class assignments.

Email. In the last 12-15 years, email has become the lingua franca of the academy and one of the primary vehicles for communication between students and faculty. I welcome your email messages (e.g. questions about lecture materials or class assignments) and typically will respond to them within 24 h. That said, I must confess that I am of the "old school" when it comes to written communication, including email. Accordingly, when you email me, please write in complete sentences that follow the basic rules of grammar and spelling. And if I reply to a message that you have sent please, at least under most circumstances, reply to let me know that you did receive my reply to your original message. Here is a website that includes a list of 32 email tips, which I encourage you to study: http://www.emailreplies.com/.

Your responsibilities. A learning environment like a university functions best when its members treat one another with courtesy, respect, fairness and honesty. Deception to gain individual benefit is an offense against members of the community and, indeed, the very existence of a community that depends critically on the honesty and openness of its members. The UO Student Conduct Code specifies that plagiarism and other forms of cheating are unacceptable and may lead to disciplinary actions. Plagiarism is submitting a piece of work or part of a piece of work (e.g. term paper) that is not one's own work without attributing the work to the appropriate source. Cheating could involve copying exam answers from another student's paper or referring to unapproved notes during an exam, among other possibilities. Any form of plagiarism or cheating in Psy 410 may result in a failing grade or dismissal from the course. All work you submit in Psy 410 must be your own work, which you produced for this course. You will find a very useful discussion of student conduct at … http://studentlife.uoregon.edu/StudentConductandCommunityStandards/StudentConductCode/tabid/69/Default.aspx … if you click on "About Cheating" and for specific information on plagiarism see … www.libweb.uoregon.edu/guides/plagiarism/students.

Guidelines for teaching and learning. The Undergraduate Committee in the Psychology Department has developed a set of guidelines for teaching and learning, which includes descriptions of best practices and expectations for *both* students and faculty in the department. You can access these guidelines at http://psychweb.uoregon.edu/undergraduates/guidelines, and I encourage you to study them as a way of reflecting on what comprises a successful learning environment for students and teachers alike.

Course topics and reading assignment. Listed below is a tentative outline of the lecture topics and readings, both the textbook and the e-course pack, that we will be covering in Psy 410. I say "tentative" because, to some degree, what we cover and how much time we spend on a topic will depend on class interest.

I. A DARWINIAN ANALYSIS OF HUMAN BEHAVIOR

Lecture Topics

A. Proximate and ultimate explanations for behavior
B. What is a "Darwinian analysis"?
C. Three Darwinian approaches: sociobiology, human behavioral ecology and evolutionary psychology

Readings

Textbook – No reading assignment
e-Course Pack

- **Jones, D.** (2008). Killer instincts. *Nature*, 451, 512-515.
- **Wright, R.** (1994). Introduction: Darwin and us; Chapter 1: Darwin comes of age. In R. Wright (Ed.), *The moral animal* (pp. 3-32). New York: Vintage Books.
- **de Waal, F. B. M.** 2002. Evolutionary psychology: The wheat and the chaff. *Current Directions in Psychological Science*, **11,** 187-191.
- **Barash, D.P.** (2006). The social responsibility in teaching sociobiology. *Chronicle of Higher Education*, 17 November 2006.

II. EVOLUTIONARY PSYCHOLOGY AND THE DESIGN OF THE HUMAN BRAIN/MIND

Lecture Topics

A. Adaptive design
B. What is a "mental" or "psychological mechanism"?

Readings

Textbook – No reading assignment

e-Course Pack

- **Bereczkei, T**. (2000). Evolutionary psychology: a new perspective in the behavioral sciences. *European Journal of Psychology, 5*(3), 175-190.
- **Ohman, A., & Mineka, S**. (2003). The malicious serpent: snakes as a prototypical stimulus for an evolved module of fear. *Current Directions in Psychological Science, 12*(1), 5-9.

III. THE BASICS OF MODERN EVOLUTIONARY THEORY

Lecture Topics

A. What is organic evolution?
B. Darwin's theory of evolution by natural selection
C. Some critical terms and points of possible confusion in adaptive reasoning

Readings

Textbook – Chapter 1, Selection and adaptation

e-Course Pack

- **Ridley, M.** (1993). Chapter 1: Human nature. In M. Ridley, *The red queen* (pp. 3-21). New York: Penguin Books.
- **Wade, N.** (2009). Darwin, ahead of his time, is still influential. *New York Times*, 10 February 2009.
- **Ayala, F. J.** 2007. Darwin's greatest discovery: Design without designer. *Proceedings of the National Academy of Sciences USA*, 104, 8567-8573.

IV. DEVELOPMENT 101 – TERMS AND CONCEPTUAL ISSUES

Lecture Topics

A. Important terms and concepts in evolution and in gene-behavior relationships
B. Frameworks in development: nature-nurture and epigenesis
C. Heritability and individual differences
D. Can learning be genetically based?

Readings

Textbook – Chapter 2, Genetics and epigenetics

e-Course Pack

- **Pinker, S**. (2002, October 13). Why the nature/nurture debate won't go away. *Boston*

Globe.

- **Multiple authors.** (2010). Nature versus nurture. Excerpts from Wikipedia at http://en.wikipedia.org/wiki/Nature-nurture_debate.
- **Seligman, M. E. P., & Hager, J. L**. (2004). Biological boundaries of learning: the sauce-Béarnaise syndrome. In D. T. Kenrick & C. L. Luce (Eds.), *The functional mind* (pp. 77-82). Boston: Pearson. Reprinted from *Psychology Today* (1972).
- **Nairne, J.S. & Pandeirada, J.N.S.** (2008). Adaptive memory. *Current Directions in Psychological Science*, 17(4), 239-243.

V. THE LEVEL OF SELECTION – GROUPS, INDIVIDUALS AND GENES

Lecture Topics

A. Group selection vs. individual selection – is there a conflict?
B. Inclusive fitness and gene-level selection; the "selfish gene"

Readings

Textbook – Chapter 3, The evolution and psychology of cooperation

e-Course Pack

- **Dawkins, R.** (1989). Genesmanship. Chapter 8 from *The selfish gene* (2nd ed) by R Dawkins (pp. 88-108). Oxford: Oxford University Press.

VI. COOPERATION AND THE PROBLEM OF ALTRUISM

Lecture Topics

A. Kin selection and Hamilton's rule
B. Nepotism: why kinship and family matter
C. Reciprocity, sharing and cheating

Readings

Textbook – Chapter 3, The evolution and psychology of cooperation (again)

e-Course Pack

- **Judson, O.** 2007. The selfless gene. *The Atlantic*, October, 2007, pp 90-98.
- **Kurland, J. A. & Gaulin, S. J.** 2005. Cooperation and conflict among kin. In: *The handbook of evolutionary psychology* (Ed. by D. M. Buss), pp. 447-482. Hoboken, NJ: John Wiley & Sons, Inc. **Note:** begin reading this article on page 457, skipping over the first 10 pages.
- **Sigmund, K., Fehr, E., & Nowak, M**. A. (2001). The economics of fair play. *Scientific American, 286*(1), 82-87.
- **Carey, B.** 2008. Citizen enforcers take aim. *New York Times*, 7 October 2008.

VII. SEXUAL SELECTION, MALE-FEMALE RELATIONSHIPS AND MATE CHOICE

Lecture Topics

A. Darwin's theory of sexual selection
B. Trivers' theory of parental investment
C. Male-female pair bonds – cooperation and conflict
D. Mate choice – female preferences and male preferences

Readings

Textbook – Chapter 5, Sex, mating and parental investment (**skip** pp 178-182)

e-Course Pack

- **Campbell, A.** (2002). Chapter 1: The essential woman: Biophobia and the study of sex differences. In A. Campbell, *A mind of her own* (pp. 1-33). New York: Oxford University

Press.

- **Daly, M., & Wilson, M.** (1999). Darwinism and the roots of machismo. *Scientific American, 10*(2), 8-14.
- **Gangestad, S. W., Thornhill, R. & Garver-Apgar, C. E.** (2005). Adaptations to ovulation. *Current Directions in Psychological Science*, **14,** 312-316.
- **Tierney, J.** (2011). The threatening scent of fertile women. *New York Times*, 21 February 2011.

VIII. REPRODUCTIVE STRATEGIES AND PARENTAL BEHAVIOR

Lecture Topics

A. A Darwinian view of parental behavior
B. Parent-offspring conflict
C. Maternal and paternal care – similarities and differences

Readings

Textbook – Chapter 6, Growth, development and conflict (**skip** pp. 204-208 and pp. 220-226)

e-Course Pack

- **Campbell, A.** (2002). Chapter 2: Mothers matter most: Women and parental investment. In A. Campbell, *A mind of her own* (pp. 35-63). New York: Oxford University Press.

IX. COGNITION AND CULTURE (several modifications likely)

Lecture Topics

A. Is "culture" adaptive?
B. Brain size, social intelligence and theory of mind
C. Religion in a Darwinian framework

Readings

Textbook – Chapter 7, Nature, nurture, language and culture (**skip** pp. 244-261)

e-Course Pack

- **Bloom, P.** (2005). Is God an accident? *The Atlantic*, December 2005.

General references for Psy 410. In the last few years, a number of undergraduate-level evolutionary psychology textbooks have been published. You might want to consult them for additional information on a topic that interests you or if you have difficulty with a particular topic presented in lecture.

Human Evolutionary Psychology. (2002) Barrett, L., Dunbar, R. and J. Lycett. Prince University Press.

Evolutionary Psychology, The New Science of the Mind. (1999) Buss, D. M. Allyn & Bacon. There's a 1st, 2nd and 3rd edition.

Evolutionary Psychology, The Ultimate Origins of Human Behavior. (2002) Palmer, J. A. and L. K. Palmer. Allyn & Bacon.

Psychology, An Evolutionary Approach. (2001). Gaulin, S. J. C. and D. H. McBurney. Prentice-Hall Inc.

Evolution and Human Behavior, Darwinian Perspectives on Human Behavior. (2000) Cartwright, J. The MIT Press. There is a 1st and 2nd edition.

Evolutionary Psychology. (2003). Rossano, M. J. John Wiley & Sons, Inc.

Journals. Publications on Darwinian (adaptive) analyses of human behavior appear in a variety of journals in several fields of study. Here are journals that are expressly devoted to evolutionary analyses of human behavior.

(1) *Evolution and human behavior*. (Formerly, *Ethology and Sociobiology).* Free access via the UO Library Web site. http://www.sciencedirect.com/science/journal/10905138

(2) *Evolutionary Psychology*, which is an online journal (http://www.epjournal.net/)

(3) *Human nature : an interdisciplinary biosocial perspective*. Free access via the UO Library Web site. http://human-nature.com/

(4) *EvoS Journal: The Journal of the Evolutionary Studies Consortium.* Free access via the UO Library Web site. http://evostudies.org/evos-journal/

Web sites. Here is a short list of excellent Web sites that deal with evolutionary psychology.

(1) The Center for Evolutionary Psychology at the University of Santa Barbara
http://www.psych.ucsb.edu/research/cep/

(2) A list of frequently asked questions in evolutionary psychology
http://www.anth.ucsb.edu/projects/human/evpsychfaq.html

(3) The official homepage of the Evolution and Human Behavior Society
http://www.hbes.com/
Click on the "links" button to access an extensive list of web addresses related to evolutionary psychology

(4) The Open Directory Project on Sociobiology
http://dmoz.org/Science/Biology/Sociobiology/

(5) An outstanding online description of evolution, including the evidence for evolution, terms used to explain it and key concepts in evolutionary theory is available at …
http://evolution.berkeley.edu/evosite/evohome.html

Blackboard course site. Finally, here is a general view of the layout of our Blackboard course site. Think of it as a road map to help you locate specific information and documents.

Psy 410 Blackboard Course Site – Spring 2011

Announcements (on course's homepage)

Course Information

- Announcements (made in class)
- Syllabus
- Lecture Topics and Reading Assignments
- UO General Information (Spring 2011)

Course Documents

- Lecture Notes
- e-Course Pack Readings
- Other Interesting Stuff (**not required reading)**

Assignments

- Exams
- Mini-literature Review Assignment