Seminar in Darwinian Psychology - Psych 407/507
Syllabus for Winter 2005
Professor Warren Holmes

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Office hours – Tuesdays, 10-10:50 AM, Thursdays, 2-2:50 PM, by appointment

Seminar meeting time/location. Wednesdays, 2-3:50 PM in 360 Onyx Bridge

General description and course content. Evolutionary psychology (EP) is an *approach* to psychological science rather than a subdiscipline within psychology. Thus, one may apply a Darwinian analysis to questions in developmental, social, cognitive, biological and other subareas within the field, as well as to other disciplines (e.g. anthropology, economics, medicine, political science). The central premise of EPs is that the human brain and the behavior it generates have been shaped over evolutionary time by the process of natural- and sexual selection. Our ancestors faced a variety of recurring problems related to survival and reproduction, such as acquiring food, avoiding predators and disease, attracting and maintaining mates, rearing children and solving the social problems associated with living in small kin-based groups. According to EPs, our present-day brains reflect the past actions of selection that acted on our ancestors vis-à-vis these "recurring problems." As Pinker (1997, p 21) writes in *How the Mind Works*, "The mind is organized into modules or mental organs, each with a specialized design that makes it an expert in one area of interaction with the world. The modules' basic logic is specified by our genetic program. Their operation was shaped by natural selection to solve the hunting and gathering life led by our ancestors." This "party line" view of EP has been challenged by investigators from various disciplines, but most of these critics agree that a Darwinian analysis of human behavior is valuable and leads to insights about human behavior that are unlikely to come from the more traditional approaches taken by many psychologists.

In this seminar, we will examine and evaluate some of the theoretical underpinnings of EP and a slice of the conceptual and empirical literature that it has generated. By reading and discussing published articles, we will consider how Darwinian theory has been used to analyze what some refer to as "human nature." The articles that I have assembled do not focus on one topic nor do they have a common theme. Rather they represent an eclectic mix that has current prominence among Darwinians who study human behavior from various perspectives. Perhaps the best way to familiarize yourself with the content of the seminar is simply to study the course-pack reading list below.

Seminar requirements. The success of our seminar will depend on the commitment that each of us has to engage in informed, open and active discussions. I hope that the atmosphere of our small group will encourage active discussion by all members and that each of us will monitor our own participation to insure that we are not under- or over-participating in seminar discussions. For registered students, Psy 407/507 is a 3-credit course that may be taken on a graded or a pass/no pass basis. Undergraduates should enroll in Psy 407 and graduate students in Psy 507, and permission from the instructor is required to register.

There are three requirements for all students enrolled in the seminar. **First,** you must read and critically evaluate each of the course-pack readings (see below) so that you are prepared each week to engage in an informed discussion of the readings. As you read, I encourage you to jot down comments and questions about what you have read and be prepared to share these in seminar discussions. **Second**, for each topic (see below) we consider, you must find two additional articles relevant to the topic, provide full bibliographic citations for each article you find and write a brief (just a few sentences) summary of the article. Your annotated bibliographies will be shared with all seminar participants as a way to help each of us build our familiarity with the literature. You may read whatever additional articles you would like, but it may be especially beneficial to pursue articles cited in a course-pack author's article when the author cites the article to make an especially important point.

Finally, you must write a *short* "reaction" to *each* of the articles we read from the course pack. In your reaction to an article, the idea is to identify something that caught your attention, like a particular finding or an intriguing idea, describe what it was that caught your attention and then explain why you found it of interest. From this, you should pose a *concise* question that will stimulate discussion of whatever it was that caught your attention.

Each reaction should be no longer than 200 words (in MS Word use the "word count" command in the "Tools" menu) and it must end with a concise question that we can discuss in our class meeting. You must email your reactions to all seminar participants by midnight on Tuesdays so that each of us can read and reflect on everyone's' reactions before our 2 PM seminar meetings begin on Wednesdays.

At the end of this document, you will find a sample reaction to one of the course pack articles.

Grading. If for each of our weekly meetings you complete the three requirements above and participate actively and constructively in each week's discussion you will receive an A. If you miss classes, fail to participate in discussions or perform poorly on the three requirements above your grade will be reduced accordingly. Although I think it unlikely that anyone interested enough in the seminar to have enrolled will do so, if you frequently fail to meet the three requirements listed above you will receive a grade of C or lower, depending on how often you fail to meet the requirements.

Course pack readings. The bibliographic citations for the course pack articles are listed below. You will be able to access and print hardcopies of the articles as .pdf files from our Blackboard course site. This is true whether or not you have enrolled in the class, as long as you have an active darkwing or gladstone account. I will put all course pack articles in the "Documents" section of the course site. Each week's readings will be in a separate file folder (e.g. "Readings for January 12th) and each specific article will be identified by the first author's last name and a keyword (e.g. "Foley_EEA.pdf"). Remember that when you login in to Blackboard, besides providing your password, you must include the name of the server after your username (e.g. wholmes@darkwing). 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).

The list of course-pack articles begins on the next page and the dates on which we will discuss them are also listed.

January 12th - In search of the environment of evolutionary adaptedness (EEA)

Foley, R. (1996). The adaptive legacy of human evolution: a search for the environment of evolutionary adaptedness. *Evolutionary Anthropology, 4*, 194-203.

Irons, W. (1998). Adaptively relevant environments versus the environment of evolutionary adaptedness. *Evolutionary Anthropology, 6*(6), 194-204.

January 19th and 26th - Adaptations, exaptations and the adaptationist paradigm

The concept of "adaptation" in central in EP and, indeed, in evolutionary studies in general. Given the critical nature of the concept, I have assembled enough reading material to warrant two weeks of discussion time. Be prepared to discuss Andrews et al. (2002) and Buss et al. (1998) on January 19th and all three articles on January 26th.

Andrews, P. W., Gangestad, S. W., & Matthews, D. (2002). Adaptationism - how to carry out an exaptationist program. *Behavioral and Brain Sciences, 25*(4), 489-553.

Buss, D. M., Haselton, M. G., Shackelford, T. K., Bleske, A. L., & Wakefield, J. C. (1998). Adaptations, exaptations, and spandrels. *American Psychologist, 53*(5), 533-548.

Gould, S. J. (1991). Exaptation - a Crucial Tool for an Evolutionary Psychology. *Journal of Social Issues, 47*(3), 43-65.

February 2nd - Adaptations? Maybe or maybe not

Menopause and grandmothers

Peccei, J. S. (2001). Menopause: Adaptation or epiphenomenon? *Evolutionary Anthropology, 10*(2), 43-57.

Hawkes, K., O'Connell, J. F., Blurton Jones, N. G., Alvarez, H., & Charnow, E. L. (2000). The grandmother hypothesis and human evolution. In L. Cronk, N. Chagnon & W. Irons (Eds.), *Adaptation and human behavior: An anthropological perspective* (pp. 237-258). New York: Aldine de Gruyter.

Pregnancy sickness

Profet, M. (1992). Pregnancy sickness as adaptation: a deterrent to maternal ingestion of teratogens. In J. H. Barkow, L. Cosmides & J. Tooby (Eds.), *The adapted mind - Evolutionary psychology and the generation of culture* (pp. 327-365). New York: Oxford University Press.

Forbes, S. (2002). Pregnancy sickness and embryo quality. *Trends in Ecology & Evolution, 17*(3), 115-120.

February 9th - Violence and aggression in men and women

Daly, M., & Wilson, M. (1988). Evolutionary social-psychology and family homicide. *Science, 242*(4878), 519-524.

Campbell, A. (1999). Staying alive: Evolution, culture, and women's intrasexual aggression. *Behavioral and Brain Sciences, 22*(2), 203-252.

February 16th - Sex differences in sexual/reproductive strategies

Buss, D. M., & Schmitt, D. P. (1993). Sexual Strategies Theory - an Evolutionary Perspective on Human Mating. *Psychological Review, 100*(2), 204-232.

Hazan, C., & Diamond, L. M. (2000). The place of attachment in human mating. *Review of General Psychology, 4*(2), 186-204.

February 23rd and March 2nd - Applied evolutionary psychology

We will discuss Quinsey (2002), Baker (2000) and Lewens (2003) on February 23rd and the two Colarelli et al articles on March 2nd.

Quinsey, V. L. (2002). Evolutionary theory and criminal behaviour. *Legal and Criminological Psychology, 7*(1), 1-13.

Baker, K. K. (2000). Biology for feminists. *Chicago-Kent Law Review, 75*, 805-835.

Lewens, S. (2003). Prospects for evolutionary policy. *Philosophy, 78*(4), 495-514.

Colarelli, S. M., & Dettmann, J. R. (2003). Intuitive evolutionary perspectives in marketing practices. *Psychology & Marketing, 20*(9), 837-865.

Colarelli, S. M., Hechanova-Alampay, R., & Canali, K. G. (2002). Letters of recommendation: An evolutionary psychological perspective. *Human Relations, 55*(3), 315-344.

A sample reaction to a course pack article. Here is an example of what I mean by "reaction" to a paper. Remember that your reactions must be emailed to all seminar participants by midnight on Tuesdays so that we all have time on Wednesdays to read and consider each set of reactions before coming to class. Also remember to keep your reactions under 200 words and to end each reaction with a concise question that we could consider in discussions. If each of us uses the same format shown below, it will simply reading and perhaps filing all of the reactions we receive via email. My sample reaction is to the paper by Irons (1998).

Warren Holmes … your name (well, OK, it's really *my* name, but you get the point)
Reaction to Irons (1998) … the article to which you are reacting
5 January 2005 … the date on which you emailed your reaction

One of the central concepts that Irons presents in his article is his formulation of the "adaptively relevant environment" (the ARE), which he proposes as an alternative to the environment of evolutionary adaptedenss. Irons argues (p. 198, middle column) that AREs "…consist of those features of the environment that the mechanism *must interact with* in order to confer a reproductive advantage." (my emphasis), and he suggests that psychological mechanisms (PMs) will generate reproductively beneficial behavior as long as the PMs interact with the appropriate ARE. All of this seems reasonable and important, except that Irons fails to specify whether his ideas about AREs are critical to the *development* of a PM or to the *activation*/*expression* of the same PM. It seems to me that during early development a child could experience an appropriate ARE for a PM to develop, but as an adult this PM might misfire if it were expressed in a non-ARE.

Question. Isn't it possible that the ARE for the *development* of a PM differs from the ARE for the *activation/expression* of the same PM, in which case it becomes necessary to identify *two* AREs to understand how PMs operate adaptively?