Psych 3420 3.0A EVOLUTIONARY PSYCHOLOGY – Winter, 2012

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Procedures - Class sessions will consist of lectures, followed by films or tutorials. Tutorials will be conducted by the TA and will mainly deal with students’ questions about the text and lectures. Students are advised to read the chapters indicated in advance of the tutorials and prepare questions if any of the material is problematic. Students may also meet with the TA about individual problems. To make an appointment, contact him in class or by email.

Exams and grades - Two exams will be given, which will be non-overlapping in course material. Both will be multiple choice types, based on text and lectures. Exam scores will be weighted equally in the final grade.

Missed exams – Students missing exams should contact the TA in timely manner, and must provide acceptable reasons and appropriate documentation to qualify for a make-up. The times and places for make-up exams will be listed on the course website and announced in class.

Lecture schedule

Jan 9 - Introduction to the course. Definition and origins of evolutionary psychology.

Jan 16 - Overview of Darwinian theory. Evolutionary psychology compared to traditional psychological approaches. (Video: Human Quest, Part I)

Jan 23 - Mechanisms of natural selection: Sources of genetic variation; directional vs. stabilizing selection; punctuated equilibrium. (Video: Human Quest, Part II)

Jan 30 - Levels of selection: Individual, group, kin, gene. (Tutorial - ch. 1- 3)

Feb 6 - Genetic variance in human individual differences: Behaviour genetics. (Video: Twins)

Feb 13 - The role of natural selection in complex social behaviours: Socio-ecology. (Tutorial -ch. 4 - 6)

Feb 27 - Midterm Exam – for lectures Jan 16 to Feb 13 and text chapters 1-6.

Mar 5 - Heredity and environment: An interactionist view. (Video: Monkey Island)

Mar 12 - Filial attachment: Imprinting. (Tutorial – ch. 7- 9)

Mar 19 - Parent-offspring attachment: Bonding. (Video: Why Sex?)
(Video: The Stossel Report)

Apr 2 - Cognitive processes: Theory of domain specificity. (Tutorial - ch. 10 - 12)

The final exam will be scheduled in the University exam period and will cover lectures for Mar 5 to Apr 2 and text chapters 7 to 12.

LECTURE OUTLINES

Jan 16
Introduction to the theory of evolution by natural selection: Darwin's voyage and the inception of the theory. Principles of the theory. The theory applied to psychology.
Proximate and ultimate levels of causation. Traditional psychology's exclusion of ultimate causation. Psychologists' rationales for the proximate approach and the evolutionists' counter-arguments.

Jan 23
Darwin's Dilemma: Could natural selection account for the diversity of life? Mendel's discovery and the synthesis of evolutionary and genetic theory.
Sources of variation in inheritance: Mutation, sex, and gene crossover.
How species evolve: The Red Queen theory; the theory of punctuated equilibria. Evidence for a universal human nature

Jan 30
Why theories require exceptions: Altruism as the major exception to the concept of individual selection.

Feb 6
The concept and measurement of heritability. Heritability estimates for cognitive and personality variables. Limitations of heritability measures.

Feb 13
Definitions: ecology, socio-ecology, ecological niche.
Crook's classic study of socio-ecology in weaverbirds: The role of food source and predation in determining solitary vs. gregarious life-styles.
The socio-ecology of mating and parenting styles: Origins of monogamy, polygyny, hypergamy, reproductive competition and sexual dimorphisms in animals and humans
Mar 5
The myth of the nature-nurture dichotomy. An interactionist model: examples in animal and human behaviour.
Contrasting the interactionist and behaviouristic models: An interactionist approach to dog training.

Mar 12
Theories of the processes underlying imprinting: Moltz's “low fear” model.

Mar 19
Distinguishing imprinting from bonding: Evidence for bonding in separation and adoption studies with animals; hormones and bonding; adaptive function of bonding.
Bonding in the human case: clinical, descriptive and experimental studies. Possible implications of bonding for adoption procedures.

Mar 26
Why two sexes? Disruptive selection at the gamete level.
Evolution of human mating strategies: The role of loss of oestrus.

Apr 2
Domain specificity: Application to the Wason task; illustrations in perceptual illusions.
Evolutionary theories of sex related differences in spatial behaviours: Gaulin and Fitzgerald's mating strategy model; Silverman and Eals' hunter-gatherer theory.