Module Details for EVOLUTIONARY PSYCHOLOGY

Current Record

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<tr>
<th>Module Code</th>
<th>PSU12050</th>
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<tr>
<td>Module Name</td>
<td>EVOLUTIONARY PSYCHOLOGY</td>
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<td>Module Short Title</td>
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<tr>
<td>ECTS weighting</td>
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<tr>
<td>Semester/term taught</td>
<td>HILARY TERM</td>
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<tr>
<td>Contact Hours and Indicative Student Workload</td>
<td>22 hours of lectures (2 hours per week in Hilary Term)</td>
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<tr>
<td>Module Coordinator/Owner</td>
<td>RICHARD CARSON</td>
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Learning Outcomes

At the conclusion of this course the student should be able to:

- Describe the premises underlying the theory of evolution and the principles of genetic inheritance.
- Discuss the concept of developmental plasticity, and the manner in which a triad of genes, development and environment is responsible for the behavioural phenotype of an individual.
- Describe the benefits of sexual reproduction for the species and for the individual.
- Discuss the behavioural significance of elements of the human genome that do not code for proteins.
- Describe the concept of behavioural inheritance and appraise its defining characteristics.
- Describe the concept of symbolic inheritance and appraise its defining characteristics.
- Describe the concept of epigenetic inheritance, and critically appraise the evidence that has been offered by way of support for this putative phenomenon.
- Describe the concept of behavioural epigenetics and explain the manner in which the effect of experiences on gene function may influence the expression of typical and atypical human behaviour.
- Describe the manner in which molecular biology has been applied to enhance our understanding of evolutionary processes.
- Describe briefly the evolution of the human species since sharing a common ancestor with other hominoid species.
- Discuss the contribution of paleontology to our understanding of human evolution.
- Discuss the contribution of molecular biology to our understanding of human evolution.
- Describe the key features that have defined human adaptations to changing environments.
Describe the ways in which the human brain is differentiated from the brains of other primates.

Critically assess accounts that have been offered to explain the rapid expansion in the size of Hominid brains.

Critically appraise the manner in which the tenets of contemporary cognitive science may influence the interpretation of historical evidence concerning the evolution of specialised mental faculties in humans.

Critically assess the “modularity” assumption of classical evolutionary psychology.

Describe and discuss the evolutionary forces that are acting currently upon human populations.

Critically assess the conjecture that self-organising processes act in concert with natural selection in determining the path of evolution.

Describe the ways in which contemporary social, cultural and environmental changes may be shaping the evolution of the human species.

Critically assess claims that are made frequently with respect to notional differences in behaviour between men and women, and rigorously appraise the putative biological explanations that are often provided by way of support.

Module Learning Aims

The aim of this course is to illustrate the advantages of adopting a “biological perspective” in studying human behaviour. Evolutionary Biology provides explanations for two sets of phenomena: 1) How the plethora of species emerged from a common single ancestral species in a series of descendant and radiating lineages; 2) How organisms come to be well-matched to face the threats and opportunities in the environment they inhabit. Evolutionary Psychologists claim that their account of human nature follows from applying the principles of evolutionary biology to the study of the human mind. Questions to be addressed in this module include: 1) What are the contemporary principles of evolutionary biology? 2) Are these principles being applied by Evolutionary Psychologists?

Together with discovery of the nature of particulate inheritance (the gene) and the sciences of molecular and developmental biology, evolutionary biology provides the fundamental basis for our understanding the human condition, and of our relationships with our physical, social, and biotic environment. An effective comprehension of typical and atypical human behaviour, both in health and disease, requires knowledge of evolutionary principles and an appreciation of the manner in which they have shaped biological processes at both an individual and a population level.

Module Content

Lecture 1: Evolutionary Theory
Lecture 2: Inherited Variation
Lecture 3: Molecular Basis of Human Genetic Variation
Lecture 4: The Importance of Sex
Lecture 5: How the Genome Lost its Junk
Lecture 6: Behavioural Inheritance
Lecture 7: Symbolic Inheritance
Lecture 8: The Concept of Epigenetics
Lecture 9: Behavioural Epigenetics
Lecture 10: Molecular Evolution
Lecture 11: The Origins of Humans
Lecture 12: What Can The Fossil Record Tell Us About Being Human?
Lecture 13: What Can The Genome Tell Us About Being Human?
Lecture 14: The Consequences of an Ongoing Evolutionary Journey
Lecture 15: Brain Evolution
Lecture 16: Evolving Big (Hominid) Brains
Lecture 17: An Evolved Mind
Lecture 18: Co-Evolution of Function
Lecture 19: Genotypic Variation in Contemporary Humans
Lecture 20: Order in the Genome
Lecture 21: Unnatural Selection
Lecture 22: Resisting Dogma

Recommended Reading List

Main recommended course text:

Some other suggested reading:
Parrington, J. (2017). The deeper genome: why there is more to the human genome than meets the eye. Oxford University Press.
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<td>Rutherford, A. (2016).</td>
<td>A brief history of everyone who ever lived: the stories in</td>
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<td>our genes. <em>Weidenfield &amp; Nicolson.</em></td>
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<tr>
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<td>Academic Year of Data</td>
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