

Course description

Evolutionary Psychology and Behavioral Genetics

Aim of the course

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This course will introduce basic principles and terms and will cover most relevant topics of Evolutionary Psychology and Behavioral Genetics. We aim to develop a scientific attitude towards the “causes” of various human behaviors and to enhance the ability of students to critically interpret results of related research.

- Students shall learn about the basic principles of evolutionary theory and its applications to psychological phenomena, and develop an understanding of what an evolutionary approach can bring to our knowledge of human behavior and mental processes: that natural selection affects not only morphological features and physiological processes of living beings, but also the nervous system, the brain, and thus mental processes and behavior, even in humans. Evolutionary accounts of a range of psychological topics will be reviewed: altruism and cooperation, within-group and between-group competition, mating preferences and behavior, parental strategies, social cognition, and even language and culture.
- Behavioral Genetics will give an overview of genetic terms and methods, and how these are used in studies which aim to uncover inherited components of human characteristics. The course will address questions such as: How and to what extent do genes influence behavior? How do scientists identify genes involved in behavior? If genes influence behavior, what role does the environment play? What are the ethical and societal implications of identifying genetic influences (and specific genes) that impact various behaviors?

Learning outcome, competences

knowledge:

- knowledge of basic concepts and terms of Evolutionary Psychology and Behaviour Genetics
- ability to place acquired material in the larger context of psychology and realize connections between topics

attitude:

- scientific evaluation of psychological problems related to these fields
- critically interpretation of related research and their results

skills:

- ability to integrate the contributions of these new and rapidly developing fields into a general framework of psychology
- formulating individual opinion based on the acquired material

Subject content

Main topics of the course

Evolutionary Psychology:

- Introduction: the evolutionary approach
- Evolutionary psychology: foundations
- Genes, the environment, and development
- Altruism and cooperation: from kinship to reciprocity to signaling and human-specific phenomena

- Mating and parenting strategies: from basic evolutionary theories of parental investment to sexual strategies and ideal standards
- Human sociality: from the social brain to intergroup relations
- Evolutionary aspects of social cognition
- Language and culture

Behavioral Genetics:

- Introduction: genes, environment and human behavior
- DNA: the "Book of Life"
- Genetic inheritance patterns
- Genetic research methods
- Psychogenetic association studies
- Interesting findings from the world of Behavioral Genetics

Learning activities, learning methods

lectures (optional activities: participation in related research, scientific lectures, visiting laboratories)

Examination and evaluation system

Learning requirements, mode of evaluation, criteria of evaluation:

requirements:

- presenting theoretical knowledge discussed on lectures and related compulsory readings
- individual, creative solution to questions related to the material

method of evaluation:

Written exam combining Evolutionary Psychology and Behavioral Genetics based on theoretical knowledge from the lectures and literature. The final grade is on a scale from 1 to 5. The two fields will have an equal weight in determining the final grade, but the lecturers may set minimum requirements in both EP and BG separately to pass the combined exam.

criteria for evaluation:

- quality and quantity of theoretical knowledge
- ability to integrate acquired knowledge

Literature

Compulsory reading list

- Dunbar, R., Barrett, L., Lycett, J. (2007) *Evolutionary psychology: A beginner's guide*. Oneworld Books.
- Plomin R, DeFries JC, McClearn GE, McGuffin P. *Behavioural Genetics*. 4th ed. New York: Worth Publishers; 2001. (selected chapters for each topic will be specified)
- Further readings from the current literature will be specified

Recommended readings:

- Specified according to the topics covered