

PS1061: Sensation and Perception

<http://www.pc.rhul.ac.uk/staff/J.Zanker/PS1061/PS1061.htm>

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Lecture 1: Introduction - Perception as Gateway to the World

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Lecture Topics

- basic aims and methods of the course: perception as important area of study between biological & cognitive psychology
- the fundamental paradigm underlying this course: understanding the human nervous system in terms of information processing
- perception/cognition and the brain: neuroscience offers a basis to understanding structure and function of mental events
- why is this an interesting subject area? some exciting questions addressed by researchers studying perception/cognition
- sensory channels serving perception are the initial bottleneck and filter for collecting data about the world
- the lecture program & topics

After this lecture you should understand the some general aspects of sensation & perception and its relation to psychology:

- studying sensation & perception, together with cognitive psychology is part of a multidisciplinary attempt to study the human mind : **how do we think ?**
- the central scientific paradigm is the **information processing approach** : the brain is interpreted as a computer dealing with huge & complex data sets
- by localising and modelling **brain function** we can address a number of very interesting questions of great cultural and practical importance
- **perceptual processes** are required as **input** for the neuronal machinery – which is absolutely crucial for a wide range of vital functions
- perception is both a **bottleneck** reducing the amount information and a **filter** selecting relevant information - we speak of **channels**, tuning, capacity

Reading List (key readings in bold, papers available through virtual resources room):

- Blakemore, C (1977) *Mechanics of the mind*. Cambridge University Press (612.82 BLA)
- Eysenck, MW (2001) *Principles of Cognitive Psychology*. (2nd ed.) Hove: Psych. Press (153.4 EYS), chapters 1, 2
- **Koch & Crick (2001) 'The zombie within' Nature 411, p 893**
- **Lewin, R (1992) The secret life of the brain. New Scientist, 5/12/1992**
- Ramachandran VS Blakeslee S (1988) *Phantoms in the Brain*. Marrow New York (153.4 CAR)

Textbooks

- **Zanker, J.M. (2010) Sensation, Perception, Action - an evolutionary perspective**. Palgrave (152.1 ZAN)
- Goldstein, E.B. (2007) *Sensation and Perception* (7th ed.) Wadsworth-Thompson (152.1 GOL)
- Mather, G. (2011) *Essentials of Sensation and Perception*. Routledge (TBA)

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see also Chapter 1 of Zanker 2010;
and Koch, Nature 411, 893 (June 2001)

Student Forum

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