

Social Cognition

BMETE47MN35, BMETE47MC28 - 2018/19 Fall Semester, BME-TTK

The goal of this course is to introduce students to various areas of social cognition from developmental, philosophical, cultural and neuroscientific perspectives. Researchers from the Central European University (CEU) are going to share their expertise and give lectures on various subfields of the social cognition literature.

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TIME & LOCATION

Weekly on Tuesdays, 12:15-13:45, BME building T, 5th floor, room T515

COURSE REQUIREMENTS

1. Write an essay on a chosen topic. The essay should discuss a question within the social cognition literature on the basis of 5 original research (i.e. not review) articles published in peer-reviewed journals. Make sure you expose the essay's central question clearly in the introduction - this could be a theoretical or empirical debate in the field of social cognition. Critically evaluate the studies you reviewed in relation to the essay's question. The length of the essay should be between 1 800 and 2 200 words (without title page and references). The essay can be in English or in Hungarian. The essay should be uploaded through this link: <https://www.dropbox.com/request/5HfT0pHZZBGO2kOS9LjZ> with the deadline of 7th December 2018 11:59 PM.

Guidelines for writing an essay:

<http://www.pszich.u-szeged.hu/segedletek/stilus-szovegminoseg/>

<https://online.stanford.edu/courses/som-y0010-writing-sciences>

Essays will be evaluated with this scoring system:

https://docs.google.com/spreadsheets/d/e/2PACX-1vT0vvk7jof9g_znE1k1Ng9eNKBLdHqrt9k0O8Vy2lzYjYA3esNOzH-TP1wj7J5RHtsdnc1vq1CsJuKj/pubhtml

2. In the exam period, give a short oral presentation (8-10 minutes) based on your essay. The presentation can be in English or in Hungarian.

Presentations will be evaluated with this scoring system:

<https://docs.google.com/document/d/e/2PACX-1vSYGrv-cgPQ4OT-CVZbldTWlwo3YSxk9YX0XX447D7r-1yFezM6bPAGukvct9UfXgE4FYwjupBHBBrMS/pub>

READING & PREPARING FOR LECTURES

Speakers will assign reading materials before each class, in some cases with a view to form discussion groups based on these and/or to ask volunteers to give a brief (5-10 minutes long) presentation on the literature in class. The reading materials and exact preparatory requirements for each class will be posted to [this folder](#) one week before the lecture. Students are asked to ensure they are up to date with these throughout the semester.

SCHEDULE

4 September 2018 - Introduction; Mirror neurons

Bertalan Polner

BME, Department of Cognitive Science, Laboratory for Perception & Cognition and Clinical Neuroscience

The aim of the lecture is to provide an overview of mirror neurons, that is, neurons that become active both when an animal executes a specific motor action and also when an animal observes another individual performing the same motor action. The discovery of mirror neurons had a significant impact on social cognitive neuroscience; mirror neurons have been suggested to play a key role in various social cognitive functions ranging from action understanding through empathy to language. The lecture will cover 1) classical monkey and human mirror neuron studies, 2) the potential role of mirror neurons in mental disorders and 3) a critical evaluation of mirror neurons.

11 September 2018 - Agency, animacy and goal attribution

Mikołaj Hernik

CEU, Department of Cognitive Science, Cognitive Development Center

This class will focus on the mechanisms enabling detection of animate agents and recognizing the goals of actions. We will discuss the main theoretical debates in this field illustrated by empirical results of studies with preverbal human infants as well as cross-cultural research and comparative research with non-human animals.

18 September 2018 - Reading the mind in others' eyes: joint attention and communicative gaze

James Strachan

CEU, Department of Cognitive Science, Social Mind and Body Group

Our visual system is a unique sensory modality in that unlike our other senses and sensory apparatus, our eyes can communicate things as well as perceive them. In fact, our gaze direction is one of the most powerful nonverbal communication signals that we have. Using our eyes not only can we direct other individuals towards important things in the environment (such as something you wish them to pass to you), but we can also communicate more nuanced information such as ownership, preference, and even aspects of our own personality. In this session, we will look at some of the key research into joint attention and communicative gaze, as well as address some of the key challenges of studying these phenomena in the lab.

25 September 2018 - Coordination in joint action

Georgina Török

CEU, Department of Cognitive Science, Social Mind and Body Group

People routinely act together with others to affect change in the environment. Even simple instances of joint action recruit a range of cognitive and perceptual mechanisms to enable coordination, such as sharing mental representations and sensorimotor information, monitoring task progress, as well as more general coordination smoothers. This session will provide an introduction into joint action research by (1) looking at key behavioral and neurophysiological findings on some of the cognitive mechanisms underlying interpersonal coordination, especially shared goal and task representations, and (2) discussing open questions in the field.

2 October 2018 - Motor learning in joint action & Social learning in expertise transmission

Simily Sabu & Atsuko Tominaga

CEU, Department of Cognitive Science, Social Mind and Body Group

Any change in the motor behavior that arises out of the interaction with the environment is called motor learning or skill learning. We learn motor skills not just individually, but also together with other people. In this session, we will briefly discuss about what motor learning is, what is the relevance of motor learning in cognitive science, what are the mechanisms mediating it and how is social motor learning made possible.

Social learning plays a vital role in human skill transmission. Beyond passing on generic knowledge, humans have developed expertise in a wide range of skills such as making tools and music. We will discuss how social learning with experts could help novices acquire expert skills.

9 October 2018 - Gesture usage during language acquisition

Edina Bulatovic-Hajnal

CEU, Department of Cognitive Science, Cognitive Development Center

In development, infants and young children use gestures to express themselves and communicate before they are able to speak. Around three months of age infants start to use deictic gestures (pointing) before they can produce the verbal label of the same object. Infants can use several kinds of gestures: deictic, conventional, iconic, abstract, co-speech or ad-hoc gestures before their first words, but after they begin to talk they continue to produce gestures also in combinations with words. However, around the second year of life, for hearing toddlers words become more powerful lexical items than other types of symbols, and they prefer linguistic forms over gestural items. Use of gestures not only predate but also predict changes in language acquisition.

16 October 2018 - Theory of Mind

Dóra Fogd

CEU, Department of Cognitive Science, Cognitive Development Center

Everyday interactions, from simple motor coordination to communication require monitoring what other people see, know or believe. Adults have remarkable capacity to do so and use the attributed mental states (such as goals, beliefs and desires) to interpret and predict other agent's actions. The aim of the course is to provide an overview of the current debates regarding the nature of the underlying mechanisms (implicit/spontaneous versus explicit/effortful) presenting recent results with adults, infants and nonhuman primates.

23 October 2018 - National holiday, no class

30 October 2018 - Understanding communication in infancy

Nima Mussavifard

CEU, Department of Cognitive Science, Cognitive Development Center

One of the hallmarks of human cognition is the ability to communicate freely and open-endedly about novel phenomena and thereby transmit relevant information that one individual could not come across on their own. Therefore, humans have evolved specialized mechanisms that allow them to learn through development the local language and symbols necessary for full-fledged communication. In this session we will discuss how infants recognize when their parents intend to communicate with them, and how they use this to learn words and the entities they refer to.

6 November 2018 - Cultural evolution, cognition and culture

Helena Miton

CEU, Department of Cognitive Science, OSTension Communication And Relevance Group

Culture is both a unique and ubiquitous feature of human life: it encompasses things like beliefs, skills, knowledge, languages, institutions and more. In the past few decades, scholars from various disciplines (biology, psychology, anthropology) have pursued the endeavor of offering a scientific and naturalist study of those phenomena, most often within Darwinian frameworks. This class will introduce you to the interdisciplinary field of cultural evolution, including both theoretical accounts and more focused case studies on how human cognition and culture interact.

13 November 2018 - Building blocks of moral cognition in children and infants

Laura Schlingloff

CEU, Department of Cognitive Science, Cognitive Development Center

Humans are unique in their tendency to judge things as “good” and “bad”, “right” and “wrong”. This tendency develops early: even preschoolers know that social norms dictate how one should behave and enforce the norms towards wrongdoers. Recent evidence from studies with infants seems to suggest that some components of moral cognition may be present even before then. For instance, young babies can distinguish “helpers” and “hinderers”, are sensitive towards principles like fairness, and start interacting cooperatively with others. However, it is not yet well understood what processes underlie such proto-moral cognition. In this session, we will talk about what makes moral cognition “special”, look at some key findings from developmental cognitive science, and critically discuss what can be inferred from them.

20 November 2018 - The evolution of cooperation: Do nice guys finish last?

Mia Karabegović

CEU, Department of Cognitive Science, Adaptive Cognition and Economics Group

Cooperation and altruism are often described as evolutionary puzzles. Questions such as why humans are often nice towards strangers, with no apparent benefit to themselves (and often at a cost), are not easy to reconcile with a self-interest-first perspective many have of evolution. The main aim of this lecture will be to present the current evolutionary theories of human cooperation, and review research about the factors that contribute to it, as well as those that hinder it.

27 November 2018 - Origins of social categorization

Barbara Pomiechowska

CEU, Department of Cognitive Science, Cognitive Development Center

4 December 2018 - Distributed cognition

Mathieu Charbonneau

CEU, Department of Cognitive Science

A group of persons may have cognitive properties that are different from those of any person in the group. For instance, high-level cognitive functions such as memory, planning, decision making, reasoning, error detection and correction, computation, learning, and so on can be identified and analyzed in the culturally organized activities of groups of people in interaction with one another and with technology. Distributed cognition is a framework for exploring the cognitive implications of the commonsense observation that in systems characterized by multiple levels of interacting elements, different properties may emerge at different levels of organization. Moving the boundaries of the unit of analysis out beyond the skin of the individual human is one important strategy for the distributed cognition approach. It allows us to see how it can be that many of the cognitive accomplishments that have routinely been attributed to individual brains are in fact the accomplishments of cognitive systems that transcend the boundaries of individual bodies.