

Syllabus

Infant Cognition

PhD Research Course
Department of Cognitive Science
Central European University
Fall 2016, 2 credits

Class: Wednesdays 11:00am to 12:40pm, in Room 103, Október 6. utca 7.

Introductory session: (including lab visit): 11:00 am on Sep 14

Instructors:

Gergely Csibra
György Gergely
Ágnes Melinda Kovács
Ernő Téglás

Office hours: by appointment

Description:

This course introduces students to the ongoing research at the Cognitive Development Center. It provides an overview of contemporary theories and research techniques of cognitive development of human infants below 2 years of age, focusing on the domain of social cognition. The course also involves laboratory practice to familiarize students with research techniques including behavioral, eye-tracking and neuroimaging methods.

Learning Outcomes

By the end of the course, students should

- be familiar with recent findings in the research of infant social cognition,
- understand the difficulties of research with human infants,
- have a basic grasp of the methods used with infants, and
- be able to choose appropriate methods for research questions.

Evaluation:

No grade is awarded, only Pass/Fail mark. To Pass, students will have to

- attend classes and lab practice,
- read the assigned papers for each class,
- present selected papers to the class, and
- write a detailed Methods section for a study running in the CDC labs (submission deadline: Dec 9).

Schedule and literature:

Sep 21

Action understanding

Southgate, V. & Csibra, G. (2009). Inferring the outcome of an ongoing novel action at 13 months. *Developmental Psychology*, *45*, 1794-1798.

Sep 28

Representing social relations

Mascaro, O. & Csibra, G. (2012). Representation of stable dominance relations by human infants. *Proceedings of the National Academy of Sciences of the United States of America*, *109*, 6862-6867.

Oct 5

Early ToM competencies

Kovács, Á. M., Téglás, E., & Endress, A. D. (2010). The social sense: susceptibility to others' beliefs in human infants and adults. *Science*, *330*, 1830-1834. (DOI: 10.1126/science.1190792)

Oct 12

Recognizing communicative intentions

Farroni, T., Csibra, G., Simion, F., & Johnson, M. H. (2002). Eye contact detection in humans from birth. *PNAS*, *99*, 9602-9605.

Oct 19

Referential expectation

Csibra, G. & Volein, A. (2008). Infants can infer the presence of hidden objects from referential gaze information. *British Journal of Developmental Psychology*, *26*, 1-11.

Oct 26

Interpreting object labels

Parise, E. & Csibra, G. (2012). Electrophysiological evidence for the understanding of maternal speech by 9-month-old infants. *Psychological Science*, *23*, 728-733.

Nov 2

Bilingual language acquisition

Kovács, Á. M. & Mehler, J. (2009). Flexible learning of multiple speech structures in bilingual infants. *Science*, *325*, 611-612. (DOI: 10.1126/science.1173947)

Nov 9

Understanding artefacts

Futó, J., Téglás, E., Csibra, G., & Gergely, G. (2010). Communicative function demonstration induces kind-based artifact representation in preverbal infants. *Cognition*, *117*, 1-8.

Nov 16

Imitation: its mechanisms and developmental functions

Király, I., Csibra, G., & Gergely, G. (2013). Beyond rational imitation: Learning arbitrary means actions from communicative demonstrations. *Journal of Experimental Child Psychology*, *116*, 471-468.

Nov 23

Infant logic

Mody, S. & Carey, S. (2016). The emergence of reasoning by disjunctive syllogism in early childhood. *Cognition*, *154*, 40-48.

Nov 30

Contingency detection and its developmental functions

Watson, J. S. (1994). Detection of self: The perfect algorithm. In S. T. Parker, R. W. Mitchell, & M. L. Boccia (Eds.), *Self-Awareness in Animals and Humans: Developmental Perspectives* (pp. 131-148). New York: Cambridge University Press.

Dec 7 - **Wrapping up**