Syllabus

Infant Cognition

PhD Research Course
Department of Cognitive Science
Central European University
Fall 2018, 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 12

Instructors:
Gergely Csibra
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:
Students will have to

- attend classes and lab practice,
- read the assigned papers for each class,
- present selected papers to the class, and
- write detailed Methods sections for two studies running in the CDC labs (submission deadline: Dec 14).

Schedule and literature:

Sep 19

Object tracking, object individuation

Wynn, K. & Chiang, W-C. (1998). Limits to infants' knowledge of objects: The case of magical appearance. *Psychological Science, 9*(6), 448-455.

Sep 26

Infant logic

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

Oct 3

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 10

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 17

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.

Oct 24

Acquiring linguistic structure

Marcus, G. F., Fernandes. K. J., & Johnson, S. P. (2007). Infant ruke learning facilitated by speecj. *Psychological Science, 18*(5), 387-391.

Oct 31

Bilingual language acquisition

Liberman, Z., Woodward, A. L., Keysar, B., & Kinzler, K. D. (2017). Exposure to multiple languages enhances communication skills in infancy. *Developmental Science, 20*, e12420.

Nov 7

Action understanding

Liu, S., Ullman, T. D., Tenenbaum, J. B., & Spelke, E. S. (2017). Ten-month-old infants infer the value of goals from the costs of actions. *Science, 358*, 1038-1041.

Nov 14

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 21

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.

Nov 28

Early ToM competencies

Kampis, D., Parise, E., Csibra, G., & Kovács, Á.M. (2015). Neural signatures for sustaining object representations attributed to others in preverbal human infants. *Proceedings of the Royal Society, London B 282*: 20151683.

Dec 5

Turn-taking contingent reactivity and ostensive communication

Tauzin, T. & Gergely, G. (2018). Communicative mind-reading in preverbal infants. *Scientific Reports, 8*, 9534.