

The Chair for Language Acquisition and Language Teaching cordially invites you to an EPPP-Sprachbeherrschung Guest lecture on:

Shedding Light on Neurophysiological Correlates of Language Development

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ABSTRACT

Over more than a decade Optical Imaging methods have been used to investigate the neurophysiological correlates of language processing in infants. The technique, based on the principles of near-infrared spectroscopy (NIRS), can non-invasively assess oxygenation changes on the brain's surface, which are related to the functional state of the neuronal tissue. The response measured by Optical Imaging is closely related to the responses assessed by BOLD-contrast fMRI and certain PET-techniques. However, the setup is very undemanding and allows near-natural experimental settings. Also co-registration with EEG is feasible without mutual interference and the methodology is silent, lending itself to research on auditory language processing.

I will briefly explain the methodology of Optical Imaging based on Near-Infrared Spectroscopy. I will also present some examples of its application in studies on language development in infancy and will try to highlight the great potential of combined vascular (NIRS) and electrophysiological (EEG) imaging approaches.

Date: Nov. 22, 2011

Time: 4 pm

Place: LG 2, 114 (University of Erfurt campus, Nordhäuser Str., 63, Erfurt)