

3-year PhD student position (TV-L E13, 65%) – reference number wiss19038

Inter-individual differences of eye movements during sensorimotor tasks

Applications are invited for a 3-year PhD student position (65%, preferably starting **May 1st 2019**) in the Neuro-cognitive Psychology lab of Prof. Dr. Werner Schneider at Bielefeld University, Germany. The candidate will work in the DFG-funded project ‘Inter-individual differences of eye movements during sensorimotor tasks’ supervised by Dr. Rebecca Foerster. The project aims to reveal how humans differ in how they use eye movements for sensorimotor tasks and how eye movement patterns are related to basic cognitive functions such as attentional capabilities, working memory, executive functions, and intelligence.

Groundwork on this topic is documented in the following publications:

- Foerster, R. M. (2018). “Looking-at-nothing” during sequential sensorimotor actions. Long-term memory-based eye scanning of remembered target locations. *Vision Research*, 144, 29-37. doi:10.1016/j.visres.2018.01.005
- Foerster, R. M. (2016). Task-irrelevant expectation violations in sequential manual actions: Evidence for a “check-after-surprise” mode of visual attention and eye-hand decoupling. *Frontiers in Psychology*, 7, 1845. doi:10.3389/fpsyg.2016.01845
- Foerster, R. M., & Schneider, W. X. (2015). Expectation-violations in sensorimotor sequences: shifting from LTM-based attentional selection to visual search. *Annals of the New York Academy of Sciences*, 1339, 45-59. doi:10.1111/nyas.12729
- Foerster, R. M., & Schneider, W. X. (2015). Anticipatory eye movements in sensorimotor actions: On the role of guiding fixations during learning. *Cognitive Processing*, 16(Suppl. 1), 227-231. doi:10.1007/s10339-015-0701-1

Applicants should have an MSc in psychology, neuroscience, biology, cognitive science, or related fields. A strong interest in experimental psychology, especially in attention, eye movement, and sensorimotor research is mandatory. In addition, excellent knowledge in statistical analyses and software (R) is required as well as fluent English (spoken and written). The ideal candidate has first experiences with eye-tracking experiments and programming (e.g., Matlab or Python). Otherwise, the candidate is expected to acquire these skills reasonably fast.

We offer a supportive and interdisciplinary environment and state-of-the art lab facilities, especially for measuring eye movements with high precision during experiments in front of a computer screen as well as in Virtual Reality. Bielefeld University hosts about 25,000 students and 3,000 employees conjoined in a single spot of Bielefeld. Bielefeld University offers its members a multitude of language courses, professional development courses, childcare services, healthcare courses, and the opportunity to perform sports (courses, gym, swimming pool, etc.).

If you are interested, please send a brief cover letter, CV, certificates, and the names and contact details of two academic references to rebecca.foerster@uni-bielefeld.de (reference number wiss19038), preferably before **April 3rd 2019**, but later applications will be considered until the position is filled.