

Title:

„Cognitive science in action: Experimental investigations on the anticipatory control of human motor behavior“

Abstract:

In the talk, I will present an overview of our work on the planning constraints and organization principles of human motor behavior. A special focus will be on the impact of goal representations and action effects for the acquisition of object manipulation skills. The experiments portrayed include simple object manipulations, bimanual coordination, and the execution of movement sequences in the context of dual-task performance. In addition, experiments on the development of motor planning skills will be presented. As the empirical findings will show, anticipating future goal states and action effects is a strong determinant of human motor behavior. It is argued that anticipatory behavioral control constitutes a basic principle in the construction of everyday actions.

Biography:

Matthias Weigelt received his PhD in psychology with Wolfgang Prinz at the MPI for Human Cognitive and Brain Sciences in Munich in 2004. He worked as a postdoc with Thomas Schack at Bielefeld University and as a responsible investigator in the DFG Cluster of Excellence in Cognitive Interaction Technology (CITEC), before becoming a professor of sport psychology, first at Saarland University (in 2010) and later at Paderborn University (in 2011).