



**Donnerstag, 22.05.2025, 15:30 Uhr**

Ort: Reichenhainer Str. 90;  
Zentrales Hörsaal- und Seminargebäude, Raum C10.013

## **Prof. Dr. János Horváth**

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## **Intentions at our fingertips: What force measurements tell us about action representations**

Most of our everyday actions have multiple consequences. For example, during typing, we experience the mechanical contact with the keys, hear the keystroke, and see the letters appear on the screen. It is hypothesized that based on the temporal proximity and contingency of the actions and the stimuli, bi-directional representational links between the actions and the stimuli (action-effects) are formed. These give rise to interactions between motor and sensory processes: the sensory processing of stimuli elicited by our actions differs from that of originating from external sources, and motor planning is influenced by the associated action-effects. Action-effects, however, are not equal: we have some – but not unlimited – freedom in choosing the relationships we represent an action with. The study of motor-sensory interactions may provide insights into how – by which consequence – one represents a given action, that is, it may provide a readout of one's action intentions. In this talk, I am going to provide an overview of classic empirical results supporting the hypothesis above, and present our own research on how force exertion patterns during simple everyday interactions – pressing, tapping on, or pinching a force sensitive device with a finger – allow insights on how action-effect relationships are represented.

Alle Zuhörer sind ab 15:15 Uhr zum Kaffee vor dem Hörsaal eingeladen.

