

SEMINAR SERIES

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PROBING THE ROLE OF THE CEREBELLUM IN SENSORIMOTOR LEARNING AND COGNITION

Featuring Dr. Richard Ivry
University of California, Berkeley

February 12, 2021 | 12:00 - 1:00 pm

Zoom Link:

<https://unomaha.zoom.us/j/98061693383>

ABOUT DR. IVRY

Rich Ivry is a professor of psychology and neuroscience at the University of California, Berkeley. He directs the Cognition and Action lab, using various tools of cognitive neuroscience to explore human performance in healthy and neurologically impaired populations. Prof. Ivry has a long-standing interest in the cerebellum, seeking to understand the role of this subcortical structure in skilled movement, timing, and, through its interactions with the cerebral cortex, cognition.

ABSTRACT

Sensorimotor adaptation has traditionally been attributed to the operation of an error-based learning system that operates in an implicit and automatic manner. However, recent work has shown that multiple processes, including high-level strategies contribute to learning in such simple tasks. In the first part of the talk, I will review a set of experiments that employ variants of adaptation tasks designed to examine how processes associated with action selection and motor execution interact during sensorimotor adaptation. Using these methods, we find a dual deficit in individuals with cerebellar degeneration: In addition to their well-described impairment in implicit adaptation, they also are impaired in implementing a strategy to facilitate learning. In the second part of the talk, I will describe our current efforts to understand this impairment in action selection, and how the results have motivated a new hypothesis that may provide a more general account of cerebellar contributions to cognition.

more info at cobre.unomaha.edu

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