

Bonn Melbourne Seminar in Decision Making and Computational Psychiatry

“Decision mechanisms in the Deep Brain: A joint-modeling approach”

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Abstract

Today only seven percent of the subcortical structures listed by the Federative Community on Anatomical Terminology (FCAT, 1998) are depicted in available standard MRI-atlases (Forstmann et al., 2017). As a consequence, the remaining 423 subcortical structures cannot be studied using automated analysis protocols available for MRI and therefore require trained anatomists for the study of subcortical brain areas: The human subcortex is notoriously difficult to visualize and analyze with functional magnetic resonance imaging. In this talk, I will first present technical advances that allow charting terra incognita; the human subcortex. Next, I will give a concrete example of how joint modeling of brain and behavior can be used to test the functional role of cortico-basal ganglia loops in decision making. Finally, I will discuss the emerging possibilities of novel human neuroanatomical approaches and directions for the incorporation of these data within the field of model-based cognitive neuroscience.

Thursday, 21st March 2024, 9am (CET)

<https://uni-bonn.zoom.us/j/67862809703?pwd=WHM3b3lIUeFJYY2x0ekxLZUhxS3UvUT09>

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