Cognitive Science Colloquium

Winter term 2024/2025
Tuesday 12.15 – 13.15 h; Lecture Hall 02, Neue Aula

When	What
29.10.2024 12.15 – 13.15	**Dr. Ronald Sladky (University of Vienna): An Active Inference Perspective for the Amygdala Complex**
	The amygdala is a functionally and anatomically heterogeneous collection of subcortical subnuclei that are involved in diverse brain processes relevant for cognitive and clinical neuroscience. Over the last decade, an array of experimental designs, translational research, and conceptual frameworks have attempted to map a plethora of functional features, ranging from affective processing (e.g., valence associations) to behavioral decision making (e.g., fear responses) across ever more nuanced amygdala circuitries. This approach lacks a comprehensive framework of the amygdala and its functions, and consequently fails to explain the available evidence on amygdala engagement shown in translational research (from rodents to humans). I argue that an active inference model of amygdala function could unify these fractionated data and interpretations into an overarching framework, which allows for clearer empirical predictions and mechanistic interpretations. This framework embeds top-down predictive models, informed by prior knowledge and belief updating, within a dynamical system distributed across amygdala circuitry that aims at self-regulation under continuously changing environmental factors and homeostatic demands.

Organisation: Verena Seibold and Volker Franz

Welcome to everybody!