Center for Music in the Brain

Guest talk with

Dr. Jean-Claude Dreher

Research director, Neuroeconomics Laboratory,
Reward and Decision Making Team, Centre
de Neurosciences Cognitives, Lyon, France.

Date: Monday, February 1st, 2016
Time: 13.00-14:00 PM
Place: Meeting room, 5th floor, building 10G, MIB/AUH, Nørrebrogade 44

Center for Music in the Brain is happy to present Dr. Jean-Claude Dreher from Centre de Neurosciences Cognitives in France in a talk titled

From reward processing to social decision making: Insights from intracranial recordings and model-based fMRI studies in humans

Abstract: Our laboratory investigates the neural mechanisms underlying decision making, motivation and reward processing in humans, using concepts from cognitive neuroscience, psychology and behavioral economics. We use experimental tools such as model-based functional Magnetic Resonance Imaging, intracranial electrophysiological recordings and pharmacological manipulations to understand the computational processes involved when making a choice. Our goals are to understand the functional organization of the prefrontal cortex in humans, the various functions that the reward dopaminergic system exerts on cognition and motivation and the neural mechanisms underlying dysfunctions of these two systems in patients with neurological or psychiatric illnesses (Parkinson's disease, patients with focal prefrontal cortex lesions, schizophrenia and pathological gambling). In parallel, we are also studying how individual variations in hormones and genes influence reward processing and decision-making. I will present recent results characterizing how reward types and probability engage specific parts of the orbitofrontal cortex, using intra-cranial recordings (iEEG) in patients with epilepsy and using fMRI in healthy subjects. I will also show how different types of rewards and punishments modulate specific brain systems when learning stimuli-outcome associations. In the social domain, we have recently characterized how the human brain monitors and updates dominance status of others during competitive interactions. Together, our results shed light on the common neurocognitive mechanisms engaged in learning stimuli-outcome associations during non-social situations as well as during social interactions.

Publications: http://dreherteam.cnc.isc.cnrs.fr/en/httpdreherteamcncisccnrsfrpub/pub/

ALL ARE WELCOME!

For more information about the guest talk, please contact Bjørn Petersen:
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