



NEURO & COGNITIVE SCIENCES

Open Your Mind Seminar

Friday, Oct 15 2021
1.30 pm – 3 pm

Université Paris Descartes
45, rue des Saint-Pères 75006 Paris
GIROUD Amphitheater

Neuro- and Cognitive sciences - Two traditions on the brink of convergence

“The neurosciences” developed along two different traditions, each with its own origin in the scientific endeavours of the 19th century and earlier. The “brain tradition” was interested in the morphology and physiology of the central nervous system. Golgi method, single and multiple cell recordings, calcium imaging, and other methods progressively allowed these researchers to understand the structure of the brain, as well as how the elements of the brain communicate. On the other hand, the “mind tradition” sought to understand the functions that the brain generates. Psychophysical testing and cognitive assessments allowed these researchers to understand the functional principles of human perception, cognition, and behaviour.

However, fuelled by the emergence of new methods like optogenetics or DREADD technology, the “brain tradition” is currently undergoing a surge of interest in the perceptual, cognitive, and behavioural functions that brain activity generates. Likewise, driven by new methods like fMRI, TMS, MEG, and others, the “mind tradition” is increasingly studying the brain activity that perceptual, cognitive, and behavioural functions are based on.

The neurosciences are thus in the middle of a convergence of interests between the two traditions. I am convinced that we are today at a point where a greater understanding of the nervous system and complex human behaviour can be acquired only by an integrated approach to neuroscience. This approach is implemented by the Integrative Neuroscience and Cognition Center (INCC) that was created in 2019 and the director of which I am. Being myself a psychophysicist I will outline why I believe that the two traditions must converge,

Florian WASZAK

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