

Conférence

Competitive neurocognitive networks underlying learning and memory: from stress to non-invasive brain stimulation

Human learning depends on multiple cognitive systems related to dissociable brain structures. These systems interact not only in cooperative but sometimes competitive ways in optimizing performance. Previous studies showed that manipulations reducing the engagement of frontal lobe-mediated, attentional processes could lead to improved performance in striatum-related procedural learning. **Dezso Nemeth** (Lyon Neuroscience Research Center, Université Claude Bernard Lyon 1, France, https://www.memoteam.org/) will present studies in which we investigated the competitive relationship between statistical learning and frontal lobe-mediated executive functions. The result sheds light not only on the competitive nature of brain systems in cognitive processes but also could have important implications for developing new methods to boost learning and memory.

Keywords: implicit learning, statistical learning, lifespan development, rTMS, DLPFC, stress, brain connectivity

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