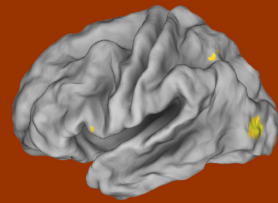


# Idegtudományi Előadássorozat



**Időpont:** Hétfő, márc. 7. 15h

**Helyszín:** Pázmány P. Kat. Egyetem - ITK (1083, Práter utca 50/a) 239-es szoba

## **Nagy Zoltán, PhD és Stephen Fleming**

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<http://www.fil.ion.ucl.ac.uk/Research/physicsres.html>

[http://web.me.com/stephen\\_fleming/web/Welcome.html](http://web.me.com/stephen_fleming/web/Welcome.html)

## **Relating metacognitive ability to individual differences in brain structure (with details on MRI data acquisition and image processing)**

Accounting for how we access and report upon mental states is an unsolved problem in cognitive science, made problematic by the fact that access is often correlated with low-level task variables such as performance. Metacognitive commentaries can be used to communicate knowledge of one's own decision process during simple perceptual judgments. In this talk Steve Fleming will discuss how the building blocks of signal detection theory (SDT) can be applied to the modeling and analysis of metacognitive reports. Data from experiments harnessing individual differences will then be presented to demonstrate that confidence, task performance and metacognitive ability (defined as the ability to discriminate correct from incorrect decisions) can be dissociated across tasks and individuals. He will show that this partially independent component of metacognitive ability correlates with the grey and white matter profile of anterior prefrontal cortex and finish by considering how behavioural and neural data can inform and constrain links between metacognitive behaviour and theoretical constructs of consciousness.

Subsequently, Zoltan Nagy will describe aspects of advanced MRI methodology upon which this study was based. Topics include a) correction for eddy current and susceptibility induced artifacts, b) calibration of MRI hardware for diffusion tensor imaging, c) how to decide whether the acquisition should be pulse triggered and d) normalizing the individual brains for group-level statistical methods.

*Az előadás után kötetlen beszélgetésre invitáljuk Önöket kávé és süti kíséretében!*

Szervezők