

Colloquia Treverensia

Fachbereich I - Psychologie

Dr. Matthias Gruber

CUBRIC, Cardiff University, UK



Dr. Matthias Gruber is an Associate Professor and the Group Leader of the Motivation & Memory Lab at the Cardiff University Brain Research Imaging Centre (CUBRIC), UK. He holds a PhD in Cognitive Neuroscience from University College London, UK, and was a postdoctoral scholar at the University of California at Davis, USA. Dr. Gruber's current research on curiosity-based learning has been funded by a Sir Henry Dale Fellowship via the Wellcome Trust.

How curiosity affects hippocampus-dependent memory via the dopaminergic circuit

Over the last decade, research on curiosity – the drive to seek new information – has grown rapidly. Several studies have shown that curiosity activates the dopaminergic circuit, thereby enhancing hippocampus-dependent learning. To guide further research on curiosity, we proposed the Prediction, Appraisal, Curiosity, and Exploration (PACE) framework (Gruber & Ranganath, 2019), which integrates theoretical perspectives on the neurocognitive mechanisms that elicit curiosity and enhance learning and information seeking.

In my talk, I will present a series of behavioural and neuroimaging studies on curiosity-based learning and discuss how the findings align with the PACE framework.

Together, these studies refine the PACE framework and emphasise the importance of curiosity research in understanding how curiosity can be leveraged to improve learning and real-life information seeking.

Montag, 28.04.2025 | 18:00 Uhr | D 435

Kontakt

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