



Aarhus, December 2012

I N V I T A T I O N

Mental Training and Neuroplasticity

MA (Philosophy) Micah Allen is defending his PhD thesis:
Mental Training and Neuroplasticity: Theoretical and Empirical Insights.



Until recently, the human brain was described as a fixed organ, with little flexibility or growth occurring outside of natural childhood development. In contrast, recent advances in cognitive neuroscience suggest a radical plasticity of the adult brain, generating enthusiasm for the possibility of adaptive brain training. Such programs, known as “mental training”, are aimed at improving behavior and well-being through specific cognitive targets and their neural substrates. Following recent evidence that mindfulness meditation practices target such processes, the investigation of mindfulness-based interventions has become an important arena for understanding training and neural plasticity. While initial results are promising, they are so far restricted in scope by severe methodological limitations. As such, a central aim of this thesis is to correct for common limitations – motivation, expectation, and placebo- in order to establish a firm empirical understanding of functional and structural neuroplasticity associated with mental training. Two such neuroimaging investigations conducted during the course of my PhD are presented in this defense. Further, I relate my findings to consciousness, action-control, and social cognition in a novel model of social learning.

DATE: Friday, 21 December 2012
TIME: 10:00
PLACE: Palle Juul-Jensen Auditorium (DNC Auditorium)
Aarhus University Hospital, Building 10G, Nørrebrogade 44, 8000 Aarhus C.

Opponents:

- Associate Professor **Heleen Slagter**
Cognition and Plasticity Lab, Department of Psychology, Amsterdam University
- Research Fellow **Jonathan Smallwood**
Max Planck Institute for Human Cognitive and Brain Sciences
- Associate Professor **Charlotte Ulrikka Rask** (Chairwoman)
Research Clinic for functional disorders, Aarhus University Hospital

Supervisors:

- Professor **Andreas Roepstorff**
CFIN/Interacting Minds Centre
- Associate Professor **Peter Vestergaard-Poulsen**
CFIN
- Associate Scientist **Antoine Lutz**
Waisman Laboratory for Brain Imaging and Behavior, University of Wisconsin–Madison, and Lyon Neuroscience Research Center

The defense is public and will be in English.

ALL ARE WELCOME.

After the defense there will be a reception in the DNC-house.

For more information about the defense, please contact:
Micah Allen / phone: +45 7846 9933 / mobile: +45 6168 9476
mga.neuro@gmail.com