JYVÄSKYLÄN YLIOPISTO
UNIVERSITY OF JYVÄSKYLÄ

Neurocenter Finland
Jyväskylä Brain & Mind

BESA

MEQ

LABORATORY DEMONSTRATIONS

Brains and Bodies in Social Interaction, Learning and Wellbeing

Campus dogs: Care and reading dogs at JYU	
Time	Tuesday 11th of June, at 17:30–18:30
Duration	1 h
Max. participants	20
Place	Oppio building, Seminaarinmäki
Presenters	Peppi Taalas[1] & Mari Herttalampi[2] feat. campus dogs 1) Strategic educational development, Rector's Office, University of Jyväskylä 2) Department of Psychology, Faculty of Education and Psychology, University of Jyväskylä

DESCRIPTION. Besides humans, there are also dogs working on University of Jyväskylä campus enhancing the wellbeing of students. JYU Centre for Multilingual Academic Communication (Movi), together with student organizations and the Finnish Kennel Club, have brought certified Care and Reading Dogs on campus to enhance the well-being and learning ability of students, as well as to promote new pedagogical methods. The primus motor of the idea, Doc. Peppi Taalas from the Rector's office (Strategic educational development), will introduce the unique and beloved concept in the Oppio building.

Investigating social perception in naturalistic situations

Time	Wednesday 12th of June, at 16:30 and 17:00
Duration	20 min
Max. participants	10
Place	Kärki building, Mattilanniemi 6
Presenters	Piia Astikainen[1], Xinyang Liu[1] & Elisa Vuoriainen[2]

1) Department of Psychology, Faculty of Education and Psychology, University of Jyväskylä
2) Department of Psychology, Faculty of Social Sciences, Tampere University

DESCRIPTION. We demonstrate the use of living persons in social perception research. These studies use liquid crystal screen as a tool and record EEG, electrodermal activity (EDA), heart rate variability, and facial muscle activity in a naturalistic situation where the participant perceives or interacts with a live person.

Investigating multimodal interaction in clinical settings

Time	Wednesday 12th of June, at 16:30 and 17:15
Duration	30 min
Max. participants	10
Place	Kärki building, Mattilanniemi 6, 2nd floor, Aa250
Presenters	Virpi-Liisa Kykyri[1], Anu Tourunen[1], Satu Halonen[1] & Petra Nyman-Salonen[1,2] 1) Department of Psychology, Faculty of Education and Psychology, University of Jyväskylä 2) Department of Social Sciences and Philosophy, Faculty of Humanities and Social Sciences, University of Jyväskylä

DESCRIPTION. We illustrate a setting for capturing multimodal data during multi-person interactions. In our lab, we simultaneously record electrodermal activity (EDA), heart rate, and respiration, synchronized with high-quality footage from a six-camera video system and microphones. High-resolution videos of faces facilitate the analysis of emotions through facial expressions, while videos capturing the entire body enable the study of movements and their synchronization.

Research on music and movement	
Time	Wednesday 12th of June, at 16:00–17:00
Duration	1 h
Max. participants	20
Place	Musica building, Motion capture Laboratory M014
Presenters	Marc Thompson[1,2], Mikko Leimu[1,2] & Petri Toiviainen[1,2] 1) Department of Music, Art and Culture Studies, Faculty of Humanities and Social Sciences, University of Jyväskylä 2) Centre of Excellence in Music, Mind, Body and Brain

DESCRIPTION. The session will start with an overview of the Centre of Excellence in Music, Mind, Body and Brain, followed by an outline of the research on music and movement that has been carried at the department. Finally, an interactive demonstration of the motion capture system will be given.

Investigating body-brain interaction using MEG

Time	Wednesday 12th of June, at 16:30 and 17:15
Duration	30 min
Max. participants	10
Place	Kärki building, Mattilanniemi 6 with a meeting in the lobby
Presenters	Tahnée Engelen[1], Suvi Karjalainen[1], Viki-Veikko Elomaa[1] & Simo Monto[1]

1) Department of Psychology, Faculty of Education and Psychology, University of Jyväskylä

DESCRIPTION. During the lab demonstration we give a brief introduction to magnetoencephalography (MEG) and the equipment needed to collect MEG data. Special attention will be given to possibilities of recording bodily signals, such as cardiac activity, electrodermal activity, breathing and eye movements simultaneously with brain activity.

Investigating body-brain interaction using TMS

Time	Wednesday 12th of June, at 16:00 and 17:00
Duration	30 min
Max. participants	10
Place	Viveca building, Rautpohjankatu 8 with a meeting in the lobby
Presenters	Joona Juurakko[1], Feiyue Li[1] & Sakari Vekki[1]

1) Faculty of Sport and Health Sciences, University of Jyväskylä

DESCRIPTION. In addition to recording brain activity, it is also possible to stimulate the brain from the outside to modulate or even generate neuronal activity. In TMS (transcranial magnetic stimulation), a strong, rapidly changing magnetic field is focused on a cortical area, which causes an electric field in the tissue and drives neurons in that area to fire. With this kind of stimulation we can, for instance, cause contractions in selected muscles or alterations in perception.

We will demonstrate how transcranial magnetic stimulation (TMS) can be used together with neuronavigation to target specific brain regions. Additionally, we will illustrate how to record the electrical activity of muscles induced by TMS.