Seminar IRH-ICUB
Consciousness and Cognition: An Interdisciplinary Approach
https://irhunibuc.wordpress.com/2016/04/05/new-seminar-consciousness-in-philosophy-and-neuroscience/
convenor Dr. Diana Stanciu
https://irhunibuc.wordpress.com/associated-members/

Date: Friday, 28 April 2017, 16h

Place: IRH-ICUB (1 D. Brandza Str.), conference room

Prof. Norbert Jaušovec
University of Maribor

Norbert Jaušovec's research concentrates on the neuropsychological underpinnings of individual differences (intelligence, emotional intelligence, creativity and personality). He has authored more than 100 papers, chapters, books, editorials etc. on psychology and neuroscience topics, among which 5 books, 54 journal papers, 15 book chapters, 28 refereed conference publications (Google Scholar: http://scholar.google.co.uk/citations?user=0PcmF1QAAAAJ&hl=en&oi=ao; Research Gate: https://www.researchgate.net/profile/Norbert_Jausovec; Blog: http://increasingintelligence.blogspot.si/. He is/ was the Slovene national correspondent of EARLI (European Association for Research on Learning and Instruction), member of the Slovene national board for UNESCO, member of the editorial board of *The Curriculum Journal* (*Taylor and Francis*); *BMC neuroscience (London: BioMed Central), The open neuroimaging journal (Hilversum: Bentham Science).* Between 1996 and 2003, Prof. Jaušovec coordinated the project: "Neuropsychological Characteristics of Highly Intelligent and Gifted Individuals" (National Agency for Research, Slovenia). Between 2004 and 2016, he also participated in the following projects: "Developmental Psychology" (National Agency for Research, Slovenia) (2004-2014); "Measurement of Neuroelectric Impulses (National Agency for Research, Slovenia) (2013-2016); Project: ENGAGE – Engineering Emotional Design (Coordination action - 6th Framework Program of the EU) (2005-2008). Prof. Jaušovec has been teaching the courses Educational psychology, Neuropsychology, Clinical Neuropsycholog and Neuropsychology of Individual Differences at the University of Maribor, the course Assessment of Intelligence and Communication at the The Catholic University of Milan (2010-2015) and also lectured for shorter time periods at the Philips Universität Marburg, Germany; University of Leicester, UK; York University, UK; Martin-Luther-Universität at Halle-Wittenberg, Germany; The Medical University of Wroclaw, Poland and the University of Leiden, Netherlands.

Increasing Intelligence

The “Nürnberger Trichter” – a magic funnel used to pour knowledge, expertise and wisdom into students – demonstrates that the idea of effortless learning and the power of intelligence was “cool” even 500 years ago. Today noninvasive brain stimulation (NIBS), which involves transcranial direct and alternating current stimulation (tDCS and tACS), as well as random noise (tRNS) and transcranial magnetic stimulation (TMS), could be regarded as a contemporary replacement for the magic funnel. They represent and extension to the more classical methods for cognitive enhancement, such as behavioral training and computer games. On the other hand, there are still a number of alternative approaches that can affect cognitive function. Among the most prominent are: nutrition, drugs, exercise, meditation-related reduction in psychological stress and neurofeedback. The presentation will provide a concise overview of methods claiming to improve cognitive functioning – psychological constructs such as intelligence and working memory. Discussed will be changes in behavior and brain activation patterns observed with the electroencephalogram (EEG), functional magnetic resonance imaging (fMRI) and diffusion tensor imaging (DTI). Examined will be the usefulness of brain training for the man/woman in the street, as well as an additional device that can verify and bring causation into the relations between brain activity and cognition. Modulating brain plasticity and by that changing network dynamics crucial for intelligent behavior can be a powerful research tool that can elucidate the neurobiological background of intelligence, working memory and other psychological constructs.