

<i>Title and Code of Course:</i> ERPB-BPS2630 Action, error, free will			
<i>Instructor's Name:</i> Horváth, János			
<i>Instructor's Email Address:</i> horvath.janos.gyorgy@kre.hu			
Credit Point Value: 6	Number of Lessons per Week: 2	Type of Course: Seminar <input type="checkbox"/> Lecture <input checked="" type="checkbox"/>	Method of Evaluation: Oral Examination <input type="checkbox"/> In-Class Presentation <input type="checkbox"/> Other <input checked="" type="checkbox"/>
Course Description:			
<p>Over the last 60 years, cognitive psychology and neuroscience have developed sophisticated techniques to understand various cognitive skills but research on the control of cognitive processes has gained momentum only during the past 20 years. The course will provide an overview of various topics in the cognitive psychology of action control including executive functions, ideomotor theory, error processing, joint action, and free will. You will gain a theoretically grounded understanding of the most widely used experimental paradigms and techniques used to investigate human action control and its neural correlates. To increase critical thinking skills, we will highlight and debate controversies and interpretational differences between theoretical approaches. Since the course material is a selection of recent scientific literature, completing the course will also increase scientific reading skills.</p>			
Bibliography:			
<p>Monsell, Stephen (1996). Control of mental processes. In V. Bruce, editor, <i>Unsolved mysteries of the mind: Tutorial essays in cognition</i>, (pp. 93-148). Psychology Press, Hove, UK</p> <p>Hommel, B. (2011). The Simon effect as tool and heuristic. <i>Acta Psychologica</i>, 136(2), 189–202. https://doi.org/10.1016/j.actpsy.2010.04.011</p> <p>Dolk, T., Hommel, B., Prinz, W., & Liepelt, R. (2013). The (not so) social Simon effect: A referential coding account. <i>Journal of Experimental Psychology: Human Perception and Performance</i>, 39(5), 1248–1260. https://doi.org/10.1037/a0031031</p> <p>Luck, S.J. (2012). Event-related potentials. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf & K. J. Sher (Eds.), <i>APA Handbook of Research Methods in Psychology: Volume 1, Foundations, Planning, Measures, and Psychometrics</i>. (pp. 523-546) Washington, DC: American Psychological Association. https://dx.doi.org/10.1037/13619-028</p> <p>Falkenstein, M. (2004) ERP correlates of erroneous performance. In <i>Errors, conflicts, and the brain</i>. Eds: Ullsperger, M. & Falkenstein, M. Leipzig, Max Planck Institute for Human Cognitive and Brain Sciences</p> <p>Gehring, W. J., & Willoughby, A. R. (2002). The Medial Frontal Cortex and the Rapid Processing of Monetary Gains and Losses. <i>Science</i>, 295(5563), 2279–2282. https://doi.org/10.1126/science.1066893</p> <p>Carter, C. S., Braver, T. S., Barch, D. M., Botvinick, M. M., Noll, D., Cohen J.D. (1998). Anterior Cingulate Cortex, Error Detection, and the Online Monitoring of Performance. <i>Science</i>, 280(5364), 747–749. https://doi.org/10.1126/science.280.5364.747</p> <p>Haggard, P. (2008). Human volition: towards a neuroscience of will. <i>Nature Reviews Neuroscience</i>, 9(12), 934–946. https://doi.org/10.1038/nrn2497</p>			