Colloquium lecture by Prof. Dr. Markus Janczyk

(Backward) Crosstalk in Dual-Tasks: Experiments and Mathematical Modeling

Several specific interference phenomena exist in dual-tasking. Backward Crosstalk refers to the observation that characteristics of Task 2 influence performance already in Task 1. Such results contradict strictly serial models of dual-tasking, but suggest that Task 2 related processes are active during Task 1 processing. Experimental work suggests that this activation influences Task 1 response selection. Against this background, we used an extended (non-stationary) diffusion model to investigate the time-course of Task 2 activation and its relation with (subsequent) Task 2 response selection. These analyses suggest (1) that Task 2 activation is asymptotically increasing and hence differs from the time-course observed in conflict tasks. (2) The gathered Task 2 activation appears to be only partially used for response selection, however. These results will be complemented with new research that became possible with methodological advances in dealing with non-stationary diffusion models.

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This lecture takes place at Liebiggasse 5, 1010 Vienna, Lecture Hall G 2nd floor and will be streamed.
Thursday, 22 May, 2025; 3pm