Context Processing & Cognitive Control

There is accumulating evidence that age-related changes in cognitive control functions are associated with age differences in processing contextual information. Context processing refers to cognitive functions enabling the updating and maintenance of goal-relevant context information (e.g., task instruction) that serve the correct execution of tasks. Event-related potentials of the electroencephalograph (EEG) allow investigating potential mechanisms of context processing in younger and older adults mechanisms with a high temporal resolution. Thereby, it is possible to differentiate age differences in cognitive processes of task preparation from age differences in the later task execution.

Selected publications:

Gajewski, P. D., Ferdinand, N. K., Kray, J., & Falkenstein, M. (2018). Understanding sources of adult age differences in task switching: Evidence from behavioral and ERP studies. *Neuroscience & Biobehavioral Reviews, 19,* 255—275.

Schmitt, H., Ferdinand, N. K., & Kray, J. (2014). Age-differential effects on updating cue information: Evidence from event-related potentials. *Cognitive, Affective, and Behavioral Neuroscience, 14*, 1115—1131.