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Event-related potentials

in response to the present and past self-names and faces

The concept of *the self* may be dispelled onto past events, future anticipations or even other people (D'Argembeau *et al.*, 2008). The relations between past-, present- and future-selves as well as between the *self* and closely-related others has not been investigated fairly. The recent event-related potential study of own face and own name detection (Kotlewska & Nowicka, 2015) investigated neural correlates of present self-face and present self-name processing in comparison to temporally distant *self* (past-self) and the others (i.e. close-other, famous, and unknown person). The amplitude of P300 (a late ERP component associated with attention, emotion, and autobiographical memory; Fonaryova Key *et al.*, 2005) to the past self-face was enhanced in comparison to P300 to the close-other's face, when it was not the case for past-self and close-other's name. This may indicate that the physical aspects of the past-self may be differentiated from the close-other. In contrast, no differences between P300 responses to the past self-name and close-other's name suggests that the non-physical aspects of the past-self and the close-other may be processed similarly.

References:

D'Argembeau, A., Feyers, D., Majerus, S., Collette, F., Van der Linden, M., Maquet, P., & Salmon, E. (2008) Self-reflection across time: Cortical midline structures differentiate between present and past selves. *Soc. Cogn. Affect. Neurosci.*, **3**, 244–252.

Fonaryova Key, A.P., Dove, G.O., & Maguire, M.J. (2005) Linking brainwaves to the brain: an ERP primer. *Dev. Neuropsychol.*, **27**, 183–215. Kotlewska, I. & Nowicka, A. (2015) Present self, past self and close-other: Event-related potential study of face and name detection. *Biol. Psychol.*, **110**, 201–211.