

Investigating autobiographical memory through the lens of self-incongruent shameful memories.

Alicja Wicher

Ruhr University Bochum, Bochum, Germany

Nikolai Axmacher

Ruhr University Bochum, Bochum, Germany

Abstract

Autobiographical memory arises from an integration of memories with the self-model, which means that the recall of one's past needs to be congruent with one's self-model. Memories invoking self-incongruent emotions pose a particular challenge for maintaining a stable and positive self-image, which makes them a good target for research into processes of self-memory integration. Expanding on our previous research, we developed an fMRI paradigm that uses subject-specific recalls of shameful episodes from the past, compared with neutral and fearful episodes as control conditions, in order to identify the neural correlates of self-incongruent episodes. To this end, we employ multivariate methods (representational similarity analysis) to compare neural activation patterns of natural images associated with the autobiographical episodes. We expect higher similarity for items associated with the incongruent (shameful) episode in areas previously connected with self-related processes.