Face-name recognition: A Brain fMRI Study

A common complaint of many older adults is the inability to remember a name with a face. Prior research has provided evidence that there is a functional change in memory encoding as people age (Erk, Spottke et al. 2011). In order to evaluate the change in encoding during the process of face-name binding, functional MRI (fMRI) was used. It is hypothesized that older adults will show more compensatory mechanisms in the prefrontal cortex during the encoding of two pieces of information. Three younger adults (18-30) and four older adults (60+) participated in the fMRI session. While in the scanner, participants viewed face-name pairs. Preliminary results indicated that older adults have greater activation in the medial-temporal lobe, specifically the parahippocampal gyrus when compared to younger adults during the viewing of face-name pairs. As data collection continues, the older adults will be split into two groups: cognitively normal healthy older adults and those reporting subjective cognitive complaints. This division of cognitive complainers and noncomplainers may provide evidence of a neurological change associated with subjective complaints.

Erk, S., A. Spottke, et al. (2011). "Evidence of neuronal compensation during episodic memory in subjective memory impairment." Archives of General Psychiatry **68**(8): 845-852.