

Main Purpose: Explicit episodic memory declines with age are, in part, due to decreased encoding and/or retrieval ability for associated components of an event (Naveh-Benjamin, 2000). Greene & Naveh-Benjamin tested whether these declines are due to an inability to retrieve associations at specific levels of representation, or if they extended to retrieval of less specific levels. They showed that older adults were deficient at retrieving associative memories at highly specific levels but could do so at lower (Greene, Naveh-Benjamin, 2019). Although this study has provided evidence that older adults retrieve lower associations, it demonstrated this through face-scene pairs (i.e., in the visual domain). In the present study, we seek to confirm these results within the verbal domain.

Procedure: Younger and older adults studied word pairs and were administered associative recognition tests containing three different probe types, based on representational overlap to originally-studied pairs. Some probes were identical to previous, some closely related and others completely dissimilar. Participants decided whether the probes were old or new. We used a 2 (Age: Young versus Old) x 3 (Probe Type: Intact, Related, Unrelated) mixed factorial design, with age as a between-subject factor and probe type a within-subject factor.

Results and Conclusion: Whereas both young and older adults are predicted to retrieve the gist of word-pair associations, older adults' retrieval of more specific representations is predicted to be impaired based on the previous application of face-scene pairs and previous research showing older adults strongly rely on gist-based processing in word recognition tasks (Tun, Wingfield, Rosen, & Blanchard, 1998). Our results are predicted to also show that word associations can be retrieved from multiple levels of specificity, suggesting that episodic memory in the verbal

domain might be accessed on a continuum of specificity as previously shown in Greene and Naveh-Benjamin's study in the visual domain.

References

Greene, N.R., & Naveh-Benjamin, M. (2019, Accepted). A specificity principle of memory: Evidence from aging and associative memory. *Psychological Science*.

Naveh-Benjamin, M. (2000). Adult age differences in memory performance: Tests of an associative deficit hypothesis. *Journal of Experimental Psychology: Learning, Memory, & Cognition*, 26, 1170-1187.

Old, S., & Naveh-Benjamin, M. (2008). Differential effects of age on item and associative measures of memory: A meta-analysis. *Psychology and Aging*, 23, 104-118.

Surprenant, A. M., & Neath, I. (2009). *Principles of Memory*. New York, NY: Taylor & Francis Group, Psychology Press.

Tun, P. A., Wingfield, A., Rosen, M. J., & Blanchard, L. (1998). Response latencies for false memories: Gist-based processes in normal aging. *Psychology and Aging*, 13, 230-241.