greater hypernosognosia/overreporting. In amnestic MCI, the lower external locus of control associations with greater underreporting of objective cognitive difficulties suggests that perhaps reduced insight in some people with MCI may result in not realizing the need for external supports, and therefore not asking for help from others. Alternatively, in amnestic participants with greater external locus of control, perhaps the environmental cues/feedback translate to greater accuracy in their memory self-perceptions. Longitudinal analyses are needed to determine how memory self-awareness is related to future cognitive declines.

Categories: MCI (Mild Cognitive Impairment)
Keyword 1: metamemory
Keyword 2: memory complaints
Keyword 3: mild cognitive impairment
Correspondence: Mary Ellen Garcia, University of California, San Diego & California State University of San Bernardino, mary.garcia@csusb.edu

2 Untangling Subjective and Objective Memory in Aging: The Effects of Strategy Use and Gender Differences on Associative Memory Performance

Caitlin M. Terao*[1], Sara Pishdadian*[1,2], Morris Moscovitch[3], R. Shayna Rosenbaum[1,2]
[1]Department of Psychology and Centre for Vision Research, York University, Toronto, Ontario, Canada. [2]Rotman Research Institute, Toronto, Ontario, Canada. [3]Department of Psychology, University of Toronto, Toronto, Ontario, Canada

Objective: In normative aging, there is a decline in associative memory that appears to relate to self-reported everyday use of general memory strategies (Guerrero et al., 2021). Self-reported general strategy use is also strongly associated with self-reported memory abilities (Frankenmolen et al., 2017), which, in turn, are weakly associated with objective memory performance (Crumley et al., 2014). Associative memory abilities and strategy use appear to differ by gender, with women outperforming men and using more memory strategies (Hertzog et al., 2019). In this study, we examine how actual performance and self-reported use of specific strategies on an associative memory task relate to each other and to general, everyday strategy use, and whether these differ by gender.
Participants and Methods: An international sample of older adults ($N = 566$, 53% female, aged 60–80) were administered a demographic questionnaire and online tasks, including 1. the Multifactorial Memory Questionnaire (MMQ) which measures self-reported memory ability, satisfaction, and everyday strategy use (Troyer & Rich, 2018); and 2. the Face-Name Task which measures associative memory (Troyer et al., 2011). Participants were also asked about specific strategies that were used to complete the Face-Name Task.
Results: On the Face-Name Task, participants who reported using more strategies performed better ($F(3, 562) = 6.51$, $p < 0.001$, $\eta^2 = 0.03$), with those who reported using three or four strategies performing best ($p < .05$). There was a significant difference in performance based on the type of strategy used ($F(2, 563) = 11.36$, $p < 0.001$, $\eta^2 = 0.04$), with individuals who relied on a “past experiences/knowledge” strategy performing best ($p < .01$). Women ($M = 0.79$, $SD = 0.19$) outperformed men ($M = 0.71$, $SD = 0.20$), $t(545) = -4.64$, $p < 0.001$, $d = -0.39$. No gender differences were found in the number ($\chi^2(3, N = 564) = 2.06$, $p = 0.561$) or type ($\chi^2(2, N = 564) = 5.49$, $p = 0.064$) of strategies used on the Face-Name Task. Only participants who reported using no strategies on the Face-Name Task had lower scores on the MMQ everyday strategy use subscale ($p < .05$). A multiple-regression model was used to investigate the relative contributions of the number of strategies used on the Face-Name Task, MMQ everyday strategy subscale score, gender, age, education, and psychological distress to Face-Name Task performance. The only significant predictors in the model were gender ($B = 0.08$, $t(555) = 4.55$, $p < 0.001$) and use of two or more strategies ($B = 0.07$, $t(555) = 2.82$, $p = 0.005$).
Conclusions: Reports of greater self-initiated strategy use, and use of a semantic strategy in particular, related to better performance on an associative memory test in older adults. Self-initiated, task-specific strategy use also related to everyday strategy use. The findings extend past work on gender differences to show that women outperform men on an associative memory task but that this is unlikely to be due to self-reported differences in strategy use. The results suggest that self-reported strategy use

https://doi.org/10.1017/S1355617723008494 Published online by Cambridge University Press

predicts actual associative memory performance and should be considered in clinical practice.

Categories: Memory Functions/Amnesia
Keyword 1: metamemory
Keyword 2: aging (normal)
Keyword 3: self-report
Correspondence: Caitlin Terao, Department of Psychology and Centre for Vision Research, York University, Toronto, Canada. E-mail: cterao@my.yorku.ca

3 Separating Memory Impairment from Other Neuropsychological Deficits on the CVLT-II

William F Goette, Jeff Schaffert, Anne R Carlew, David Denney, Heidi Rossetti, C. Munro Cullum, Laura H Lacritz
University of Texas Southwestern Medical Center, Dallas, Texas, USA

Objective: Learning curve patterns on list-learning tasks can help clinicians determine the nature of memory difficulties, as an “impaired” score may actually reflect attention and/or executive difficulties rather than a true memory impairment. Though such pattern analysis is often qualitative, there are quantitative methods to assess these concepts that have been generally underutilized. This study aimed to develop a model that decomposes learning over repeated trials into separate cognitive processes and then include other testing data to predict performance at each trial as a function of general cognitive functioning.
Participants and Methods: Data for CVLT-II learning trials were obtained from an outpatient neuropsychology service within an academic medical center referred for clinical reasons. Participants with a cognitive diagnosis of non-demented (ND) or probable Alzheimer’s disease (AD) were included. The final sample consisted of 323 ND [M_{age} = 58.6 (14.8); M_{edu} = 15.4 (2.7); 55.7% female] and 915 AD [M_{age} = 72.6 (9.0); M_{edu} = 14.2 (3.1); 60.1% female cases. A Bayesian non-linear beta-binomial multilevel model was used, which uses three parameters to predict CVLT-II recall-by-trial: verbal attention span (VAS), maximal learning potential (MLP), and learning rate (LR). Briefly, VAS predicts expected first trial performance while MLP, conversely, predicts the expected best performance as trials are repeated, and LR weights the influence of VAS versus MLR over repeated trials. Predictors of these parameters included age, education, sex, race, and clinical diagnosis, in addition to raw scores on Trail Making Test Parts A and B, phonemic (FAS) fluency, animal fluency, Boston Naming Test, Wisconsin Card Sorting Test (WCST) Categories Completed, and then age-adjusted scaled scores from WAIS-IV Digit Span, Block Design, Vocabulary, and Coding. Random intercepts were included for each parameter and extracted for comparison of residual differences by diagnosis.
Results: The model explained 84% of the variance in CVLT-II raw scores. VAS reduced with age and time-to-complete Trails B but improved with both verbal fluencies and confrontation naming. MLP increased as a function of WAIS Digit Span, animal fluency, confrontation naming, and WCST categories completed. Finally, LR was greater for females and WAIS-IV Coding and Vocabulary performances but reduced with age. Participants with AD had lower estimates of all three parameters: Cohen’s d = 2.49 (VAS) – 3.48 (LR), though including demographic and neuropsychological tests attenuated differences, Cohen’s d = 0.34 (LR) – 0.95 (MLP).
Conclusions: The resulting model highlights how non-memory neuropsychological deficits affect list-learning test performance. At the same time, the model demonstrated that memory patterns on the CVLT-II can still be identified beyond other confounding deficits since having AD affected all parameters independent of other cognitive impairments. The modeling approach can generate conditional learning curves for individual patient data, and when multiple diagnoses are included in the model, a person-fit statistic can be computed to return the mostly likely diagnosis for an individual. The model can also be used in research to quantify or adjust for the effect of other patient data (e.g., neuroimaging, biomarkers, medications).

Categories: Memory Functions/Amnesia
Keyword 1: dementia - Alzheimer's disease
Keyword 2: demographic effects on test performance
Keyword 3: learning
Correspondence: William F. Goette, University of Texas Southwestern Medical Center, William.Goette@UTSouthwestern.edu

https://doi.org/10.1017/S1355617723008494 Published online by Cambridge University Press