

# Virginia Cognitive Aging Project

Salthouse Cognitive Aging Lab

Spring 2019

## We'd love to see you again!

The Virginia Cognitive Aging Project is a longitudinal study, meaning data are collected from the same individuals over several years. It's very important that as many people as possible participate again so that we can get information about changes occurring within individuals over time rather than simply differences across people of different ages.

Participation would entail tasks similar to those you performed during your last visit with us. You would complete various cognition and memory tests in three 2-hour sessions along with several questionnaires to be completed at home. Sessions can usually be accommodated to your schedule and you will be compensated \$120 for your time!

If you are willing to participate again, please call us at (434) 982-6320 or email us at:

[cogage@gmail.com](mailto:cogage@gmail.com).



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## Thank you for your participation.

The Virginia Cognitive Aging Project is currently one of the largest longitudinal studies focusing on age differences in cognitive functioning

in the world. We would not be able to conduct this research without your continued support and participation. We hope you find the

information in this newsletter interesting and that you enjoy reading what we have found thus far!



# Sex Differences in Memory and Spatial Visualization

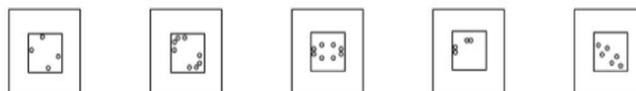
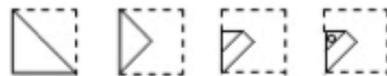
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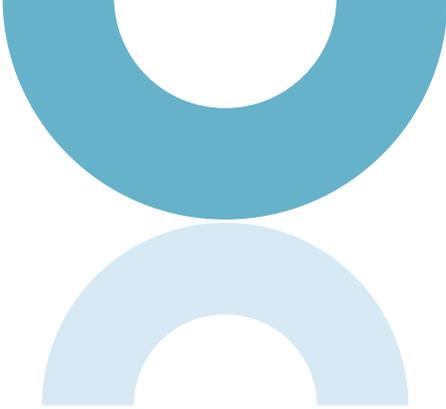
Karen Siedlecki,  
PhD, Associate  
Professor of  
Psychology at  
Fordham University

Do women have better memories than men? Are men better than women at spatial tasks? If you have wondered this, you are not alone; cognitive differences between men and women have been a topic of psychological research (and controversy!) for decades. More recently, debate surrounding the lack of proportionate representation of women in science-related fields has included the examination of differences in cognitive abilities between men and women. Thus, one topic we recently explored in detail was whether there are gender differences in a range of cognitive tasks administered in the laboratory (including things like memory, spatial visualization, reasoning, processing speed, and vocabulary), and also whether these differences are related to the age of the participant. Some

researchers have suggested that the magnitude of gender differences in cognitive abilities may decline over time and increased age due to changes in societal expectations. Thus, one may expect larger differences between men and women in older adults and smaller differences between men and women in younger adults due to shifts in societal beliefs as a result of changes in traditional roles for both men and women. The results of our analyses were consistent with what previous researchers have found. Namely, women performed better than men on tests of episodic memory. These tasks require participants to remember a list of unrelated words, pairs of words, or a story. Women also performed better than men on tasks of processing speed, which include things like writing down numbers that correspond to symbols as quickly as possible.

Sample Paper Folding Problem – which pattern of holes in the bottom panel would be produced from the sequence of folds and hole punch illustrated in the top panel?





In contrast, men performed better than women on tests of spatial visualization. These tasks require participants to, for example, select a pattern that would result from a series of paper folds and hole punches. These differences were generally quite small, but consistent. In particular, the magnitude of the differences between men and women stayed the same across age. That is, women performed better than men on tests of memory and processing speed at young, middle, and older ages. Likewise, men performed better than women on tests of spatial visualization at young, middle, and older ages. The lack of age

differences is the magnitude of the gender effects is interesting because it suggests that whatever contributes to the differences between men and women, whether biological or experiential in nature, persists throughout adulthood. Since age does not appear to influence the effects of gender, future research could examine whether other variables (such as self-reported masculinity and femininity) influence the differences between men and women on performance on cognitive tasks.

## Do Social Relationships Benefit Cognition and Intelligence?

One of our questionnaires specifically asks about your social relationships with your friends and family, with questions including how often you are in contact with them or how much emotional support you give or receive from them. Many studies have shown that there are positive associations between social support and cognitive abilities like memory and problem-solving. However, it was largely unclear which aspects of social support affect cognitive performance. With our research, we wanted to examine this relationship as well as see how age and sex affect it. The study showed that both providing and receiving emotional and informational

support exhibited positive relations with cognitive performance.

When taking age into account, the research showed that contact with friends as well as receiving and providing social support decreased as individuals became older. These results supported the view that older individuals tend to focus on fewer, more intimate relationships such as close friends and family members which explained the overall decrease in received and provided support.



***Want to learn more? You can view details about our lab, biographies of current research assistants, and read papers published by the laboratory on our website.***

***Visit us at [www.MentalAging.com](http://www.MentalAging.com)***

In addition, older individuals perceived to be receiving more support which could have meant that the relationships that they maintained were generally more positive. Although age and sex both were related to levels of social support, they were not related in ways that social support affected cognitive performance.

Overall, the study showed that specific types of social support such as emotional support as well as giving and receiving support does benefit cognitive abilities and general intelligence throughout life for people of all ages and sexes. Through this study, we can learn that giving back the support is just as important as receiving support, both for you and your friends and family!



## **Where are they now?**

**Here is a profile on a former lab member and project coordinator, Kelly Shaffer!**



**Kelly Shaffer** received her B.A. in psychology from the University of Virginia and her Ph.D. in clinical psychology from the University of Miami, where she received a National Cancer Institute F31 National Research Scholar Award. She completed her clinical internship with the Behavioral Medicine Service at Harvard Medical School/Massachusetts General Hospital. Recently, Kelly accepted an Assistant Faculty position in the University of Virginia School of Medicine. Kelly is a licensed clinical psychologist with specialized training in psychological well-being in cancer (psycho-oncology). Her research examines caregiving burden among cancer caregivers (i.e., family members or friends who provide a patient unpaid care due to the patient's illness), with the goal to modernize and expand psychosocial care delivery to cancer caregivers through scalable and effective technology-based interventions.

While not at work, she is probably either walking her dog, a retired racing greyhound named Porter, or re-reading an old novel.

## **Cognitive Aging Lab**

1023 Millmont Street

Charlottesville, VA 22904-4400

Phone: (434) 982-6320

E-mail: [Cogage@gmail.com](mailto:Cogage@gmail.com)

***We are on the web!***

***Check us out at:  
[www.MentalAging.com](http://www.MentalAging.com)***