Where are they now?

The Cognitive Aging Lab has employed over 20 research assistants every summer since starting in 2001. Our research assistants have gone on to clinical psychology Ph.D. programs, law school, nursing school, and more! Here's what a few of them have been up to recently.

To read bios on all of our current research assistants from 2012, visit our website at www.mentalaging.com under "Lab Members"

Elise Clerkin (Research Assistant 2005)

Elise received her Ph.D. in clinical psychology from UVa in 2010, after completing a clinical internship at the University of IL-Chicago Medical Center. She is currently a post-doctoral research fellow at Brown University's Center of Alcohol and Addiction Studies, where she evaluates questions tied to comorbid anxiety and substance use.

Josh Magee (Research Assistant 2004-2005)

Josh received his Ph.D. in clinical psychology from UVa in 2010 and is a post-doctoral fellow with the Centers for Behavioral and Preventive Medicine in Brown University's Medical School. In his research, Josh applies cutting-edge technologies such as the Internet and mobile phones to improve behavioral health.

Amanda Beahm (Research Assistant 2009)

After graduating from UVa in May 2010 with a BA in Psychology, Amanda worked as an Inpatient Physical Therapy Tech at Culpeper Regional Hospital. Currently, she is in Nursing School at Shenandoah University in Leesburg, VA. In May of 2012, she will graduate with an Accelerated Second Degree Bachelors of Science in Nursing and get married. After graduation, Amanda hopes to work in the ICU or Labor and Delivery .

Kelly Shaffer (Coordinator 2011)

Kelly is now a first year clinical health psychology graduate student at the University of Miami. She is currently working on a home-based intervention via Skype with cancer patients and their family members to increase health behaviors, including fruit and vegetable consumption and physical activity. On the weekends, she takes full advantage of the beautiful weather and beaches.

The Virginia Cognitive Aging Project is an ongoing project which is able to continue because of your participation and support. We will most likely be contacting you in the future and hope that you will participate again!

Cognitive Aging Lab

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Salthouse Cognitive Aging Lab
Spring 2012

Virginia Cognitive Aging Project

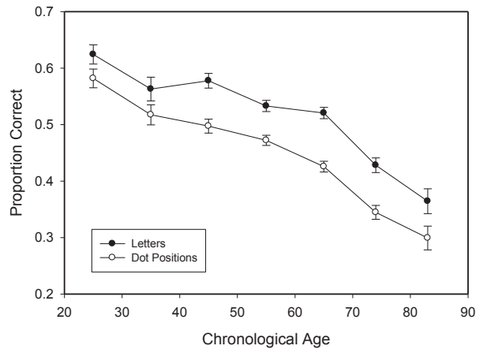
The Virginia Cognitive Aging Project is currently the largest longitudinal study in the world focusing on age differences in cognitive functioning across all of adulthood. Our research would not be possible without your continued support and participation!

This newsletter contains some interesting findings from the data we have collected, as well as some stories about our participants and staff. We hope you will enjoy reading about what we have been up to.

In this issue

Working Memory and Cognition

Two tests in the project were designed to evaluate the accuracy of keeping track of continuously changing information, such as might be required when trying to remember if you have already added an ingredient to a recipe, or when you are trying to maintain awareness of the positions of vehicles in different lanes of traffic while driving. Our two tests of this type of *"working memory"* involved either presenting a sequence of between 4 and 12 alphabetic letters or positions of red dots in an array, and asking you to remember the last 4 items in the presentation in the correct order. Because the length of the list was unpredictable, the oldest items had to be constantly replaced with the newest items in order to be able to recall the most recent 4 items.



As can be seen in the graph, accuracy of recalling the last 4 items in the list was lower with increased age in both the letter and dot position versions of the test. However, it is interesting that at all ages, accuracy was higher in the letter task than in the dot position task, which we think may reflect the use of a verbal rehearsal strategy with the letters that was not possible with the dot position material.

Because working memory is sometimes considered a fundamental component of cognitive functioning, our primary interest in these tests is in how they are related to other types of cognitive tests. The analyses are still being conducted, but one surprising finding so far is that performance on these tests was more strongly related to performance on tests of reasoning than to performance on tests of memory. In other words, people who had high levels of accuracy on these tests also tended to be more accurate than the average person in tests of selecting the best completion of a missing cell in a matrix, but they were not necessarily more accurate than the average person at remembering details of stories. These results are consistent with the idea that working memory may be important in many types of cognition, and we will be exploring this possibility in more detail in additional analyses.

Visit us on the web!

To read lab publications and past newsletters, visit the publications section of our webpage!

www.mentalaging.com

A test from a participant

Usually the research assistants do most of the testing at the lab, but participant Al Hood had us in stitches when he sent in this quiz assessing the members of the lab:

To the staffers of the Cognitive Aging Study, a few questions:
There is no right or wrong answer, so please be as honest as possible.

Please mark your answer with 1 through 5 using this guideline:

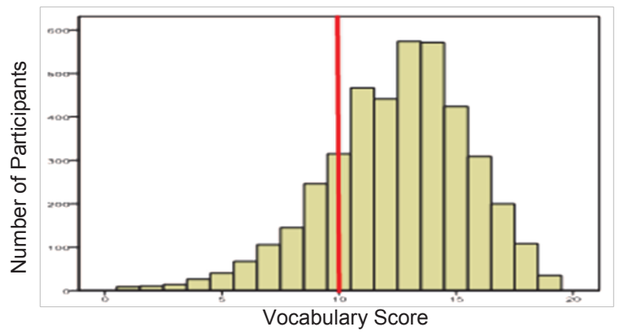
1) *This is the most ridiculous question I have ever seen*
2) *Pretty silly question, but vaguely interesting too*
3) *I understand the question but refuse to answer*
4) *I'll answer this in the next session*
5) *Whoever thought of this question is a genius*

You have 5 seconds to answer *all* the questions. Alright, you may begin now.

1) If you decide that you're indecisive, which one are you?
2) What do you say to someone who says you're in denial, but you're not?
3) If masochists *like* to torture themselves, wouldn't the best way to be to *not* torture themselves?
4) If there's an exception to every rule, doesn't the exception to *that* rule mean there *are no* exceptions?
5) If you try to fail and succeed, what did you just do?

How representative are our participants?

In order to be able to generalize the findings of this project to the general population, it is important to determine the representativeness of the participants. The Virginia Cognitive Aging Project uses several cognitive tasks based on standardized tests in which norms are available from nationally representative samples. As a result, we can assess the representativeness of our participants by comparing the distributions of scores on these tests with the averages in the normative samples, which in one scale are set at 10. One of the tests involved providing definitions of words, and the distribution of scores from participants in our project is shown below. Notice that the scores span the entire range from 1 to 19, but that the average (of 12.5) is well above the average in the nationally representative sample, as indicated by the vertical red line.



Three other tests in the project are also derived from standardized tests with norms from nationally representative samples, to allow similar comparisons. On average, participants in our project performed well above the nationally representative normative sample on these tests as well.

Based on this information, it can be inferred that the participants in the Virginia Cognitive Aging Project tend to perform much better than the average person in a nationally representative sample on several cognitive tests. Because most of our participants are functioning well above the national averages, this could limit the generalizability of our results to the broader population. However, the relatively large number of participants in our project (currently 4,220 individuals who have completed at least one occasion), and the wide range of scores (from 1 to 19 on all tests), allows analyses to be carried out among subsets of people selected to match the proportions in the population, and therefore our results can be extrapolated to the general population with the use of various statistical procedures.

Participants like YOU!

If you've ever enjoyed jazz at Hamiltons' at First & Main, or watercolors of the downtown mall in the UVA hospital or Great Graphics, you've likely witnessed some of the work of two of our participants!

The Kannensohn's, Dave, a jazz clarinetist and Lois, a watercolorist, came to participate with our lab in 2008, and returned for another round in 2011. Mr. Kannensohn is locally renowned for his skill as a jazz clarinetist, and has been a staple at Hamiltons' on Wednesday and Saturday evenings. Playing duets with musicians who are sometimes less than a third of his age, Mr. Kannensohn is well known in the community for his ragtime-influenced style.

Not to be outdone, Mrs. Kannensohn is a prominent local artist as well—her watercolor pieces depicting the downtown mall have been featured across Charlottesville in venues such as the UVa Hospital as well as Great Graphics. She was one of the original members of the Central Virginia Watercolor Guild, having been a member for almost two decades. She enjoys the guest artist lectures, critiques, and new technique demonstrations afforded by the Guild meetings.

The pair moved to Charlottesville in 1990, after visiting Lois' son who was active in Live Arts, and falling in love with the city as so many of us have. Together with their cat Ella Fitzgerald, they work hard to stay active five to six days per week!

We would like to thank them for their time spent in our lab, as well as their contributions to the Charlottesville community.

Working in the Cognitive Aging Lab has many benefits, including gaining excellent research and professional job experience. But ask any of our research assistants and they'll say their favorite part of the job is meeting **participants like you!** Here's a look at two of the many people like you we have had the wonderful opportunity to meet.