

# Andrew Butler

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*Duke University, USA*

<http://duke.edu/~ab259/index.html>

## **What does your research focus on?**

Generally speaking, I study human memory and learning. However, I am particularly interested in how the act of retrieving information from memory affects subsequent memory for that information. Many people consider memory retrieval to be a neutral event, much like measuring someone's weight. Just as stepping on a scale doesn't change how much someone weighs, memory retrieval is assumed to reveal the contents of memory but leave them unchanged. However, a large body of research has shown that retrieving information from memory actually changes memory. My program of research explores the underlying cognitive processes that produce this basic finding as well as various practical applications.

## **What drew you to this line of research? Why is it exciting to you?**

My interest in human memory started with a class on the topic taught by Gene Winograd that I took during my junior year at Emory University. I fell in love with memory research over the course of that semester. At first I was hooked by the puzzles and phenomena, but ultimately my interest was sustained by the fact that memory plays a fundamental role in virtually every aspect of cognition.

Later in graduate school, my interest in human memory expanded greatly in both breadth and depth. Washington University in St. Louis is one of the best places in the world to study human memory. The sheer number of memory researchers is incredible, but perhaps more impressive is the variety of approaches to the study of memory — both within the Department of Psychology and other departments

(biology, neuroscience, anthropology, history, education, etc.).

### **Who were/are your mentors or psychological influences?**

Roddy Roediger, my doctoral advisor, has had the biggest influence on my development as a scientist. He is a terrific role model, a wealth of knowledge about psychological science, and a staunch advocate for his students. I have learned many things from Roddy, but the most valuable lesson that he has taught me is about the value of relationships. He has been hugely successful in his own career, but his active interest in fostering the careers of others is what sets him apart. He makes everyone else around him better. I hope that I can help my students and colleagues in the same way. While at Washington University in St. Louis for my doctoral training, I had the opportunity to interact with many other fabulous people too. I learned an enormous amount from the faculty, my research collaborators, and my peers in graduate school.

Beth Marsh, my postdoctoral advisor, has had the second biggest influence on my development. Over the past two years of working with her at Duke University, I have gained a whole new perspective on memory research. She has given me the freedom to pursue my own ideas, while also helping to shape my thinking about memory. Beth has also taught me a lot about navigating the complex world of grant funding — an invaluable skill that will serve me well throughout my career. During my time at Duke, David Rubin has been another important mentor for me. He has taught me a great deal about autobiographical memory in a relatively short time. I have also benefited from working with new research collaborators and interacting with other members of the Duke community.

Another major influence was the people who got me started on my path in cognitive psychology: Gene Winograd and Lynne Nygaard (my senior thesis advisor) at Emory University, and Fred Dick and Liz Bates at University of California, San Diego (where I worked for a year after college). Finally, the students with whom I have worked on research projects have had a huge influence on my thinking about memory through their questions, comments, and insights (a fresh perspective can be extremely valuable). I have benefited greatly from their hard work in accomplishing research projects.

### **To what do you attribute your success in the science?**

I think that much of my success can be attributed to the people in my life and the opportunities that I have been afforded. Throughout my life I have been blessed to have people who supported my ambitions and gave me the chance to succeed. Ever since I was a little boy, my parents have stressed that it is learning that matters, not grades and other achievements. I think that this mindset caused me to discover joy of learning for sake of learning, and ultimately led me to pursue a career in science. My teachers, mentors, colleagues, collaborators, and fellow students helped me to acquire the knowledge, skills, and experiences needed to achieve that career. And, of course, I could not have done any of it without the love and support of my friends and family (my parents, my sister, and my wonderful wife).

### **What's your future research agenda?**

My main line of research revolves around how retrieval practice (i.e. testing) can be used to promote long-term retention and transfer of learning with implications for educational practice. Within this general line of research, I plan to continue investigating topics such as: 1) exposure to misinformation

and the acquisition of false knowledge, 2) the use of feedback to correct memory errors, and 3) people's metacognitive ability to assess the accuracy of information retrieved from memory. In addition, I am currently developing a new line of research that investigates how retrieving memories of events from our lives can change the way in which we remember those events. The goal is to gain a better understanding of how retrieval affects the both the content and phenomenological characteristics of autobiographical memories. Potential applications of this research include the development of interventions for various mental health disorders (e.g., post-traumatic stress disorder).

**Any advice for even younger psychologists? What would you tell someone just now entering graduate school or getting their PhD?**

Read every day. Write every day. Interact with lots of different people. Immerse yourself in psychological science. Many of the most exciting discoveries in science occur at the intersection between different disciplines or areas, so share your ideas with researchers that are outside of your area and listen to their ideas. Remember that science is a collective enterprise — we are all on the same team.

**Please write a sentence or two about the publication you are most proud of or feel has been most important to your career. As challenging as it may be, please limit it to one publication.**

Butler, A. C. (2010). Repeated testing produces superior transfer of learning relative to repeated studying. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 36, 1118-1133.

I am extremely proud of this publication for several reasons: 1) the findings demonstrate that retrieval practice can be used to promote the transfer of knowledge to a variety of contexts, 2) it communicates my dissertation research on which I spent a lot of time and effort, and 3) it is my first solo publication and thus represents an important step in my career.