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PhD 2002, Washington University in St. Louis

Area of research: Memory

<http://memorylab.uchicago.edu>



Publication most proud of:

Gallo, D. A. (2006). *Associative illusions of memory*. New York: Psychology Press.

I had been thinking about false memory research for a little over a decade, and this book was an opportunity to synthesize all of these findings into a (hopefully) coherent story. It allowed me to pull together findings that cut across traditional research boundaries, including those between cognitive, social, neuropsychological, and neuroscientific approaches. In many ways, I view this project as the final progress report on the first stage of my career, and as a stepping-stone for an even more integrative approach to studying the mind in the future.

What does your research focus on?

The cognitive neuroscience of human memory. I'm interested in almost every aspect of memory research, but much of my work has explored the intersection between metacognition and memory accuracy. To take a recent example, Alzheimer's patients have amnesia for many events, but sometimes they are unaware of these memory deficits, a metacognitive deficit called "anosognosia." My colleagues and I found that the degree of anosognosia in patients can be negatively linked to their memory accuracy. When ability and awareness are disconnected in this way, it can wreak havoc on many psychological functions, distorting memory and one's sense of reality. I've been studying these and other questions using carefully designed experimental tasks, neuropsychological measures, and functional neuroimaging.

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

I've always been fascinated by the idea that reality is a mental construction, that we can only know the universe through the mind's eye. I initially thought I'd study perception, but then I took an undergraduate course on memory and realized that perception was just the tip of the iceberg for my interests. All of our understanding of the world is ultimately derived from memory, from what we have learned and experienced in our lifetime, and from the specialized brain systems that evolution has given to process this information.

Who were/are your mentors or psychological influences?

John Seamon was a wonderful undergraduate mentor, both patient and generous, and he introduced me to experimental psychology. When he suggested that I get my PhD with Henry (Roddy) Roediger it was an obvious fit. Of course, readers of the *Observer* are familiar with Roddy, whose columns as "The Academic Observer" give a glimpse into his style: insightful, scholarly, and engaging. I could not have asked for a better graduate mentor, and the lessons I learned from him continue to guide me. As a bonus, when I arrived at Washington University he and others were building the department into a cognitive neuroscience powerhouse, so there were many brilliant minds to learn from. From there I did a post-doc in Dan Schacter's lab at Harvard, where I learned even more about neuroimaging and neuropsychology. Working with Dan greatly broadened the scope of the theoretical questions I had been asking. I was lucky to have all these experiences.

To what do you attribute your success in the science?

I figured out what I wanted to do early on, and several good mentors showed me the way. So I see myself as having a head start instead of being unusually successful. Interestingly, my wife tells me that I sometimes obsess over my work, but I don't view myself that way. So perhaps some self-deception keeps me going, or at least a selective memory. Maybe that's true for everyone, but by definition, we'd never know it.



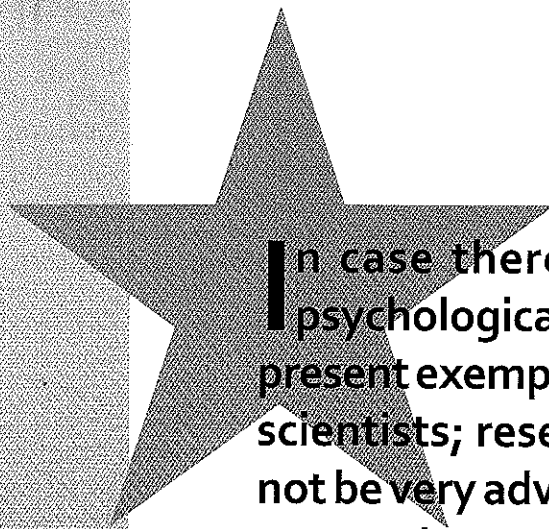
What's your future research agenda?

I plan to continue to study the neurocognitive basis of metacognitive awareness, as it has many practical implications. If people are unaware that their memory is in decline, they might be overconfident in their decisions, fail to seek needed medical attention, and so forth. Although we have made significant progress understanding how healthy aging and Alzheimer's disease affect cognition, we have only begun to learn how they affect metacognition.

I'm also interested in the generalizability of cognitive theories. Cognitive psychology is great for understanding general information processing mechanisms, but it often overlooks the possibility that biologically distinct systems evolved to process information for different reasons. I've begun to study these issues with Ian McDonough, a graduate student here in Chicago, by comparing the accuracy of memories for different types of information. Are we evolutionarily hard-wired to distort some types of memories more than others? That's an exciting (and somewhat unnerving) possibility. The challenge is bringing these questions into the lab, but with the rise in interdisciplinary approaches such as social-cognitive-neuroscience, I think that challenge is being met.

Any advice for someone just now entering graduate school or getting their PhD?

Read *The Compleat Academic*. It has great advice for starting an academic career, and I keep my copy handy. Also, once you land your dream job, try to give your students the same positive opportunities that your mentors gave you, and don't lose sight of the big questions that drew you to the field in the first place.



In case there was any doubt, the future of psychological science is in good hands. Here we present exemplars of today's young psychological scientists; researchers who, although they may not be very advanced in years, have already made great advancements in science. This is the first of a two-part series profiling some of the field's

Rising Stars

In This Issue:

- ★ Virginia Kwan, p. 21
- ★ Nate Kornell, p. 22
- ★ Teresa Treat, p. 23
- ★ David Gallo, p. 25
- ★ Todd S. Braver, p. 26
- ★ Serena Chen, p. 28
- ★ Penny S. Visser, p. 29
- ★ Jenny Saffran, p. 31
- ★ Eva Pomerantz, p. 32
- ★ Sharon Thompson-Schill, p. 33

Coming Next Month:

- ★ Kathleen McDermott
- ★ Elizabeth J. Marsh
- ★ Ian Dobbins
- ★ Abigail Baird
- ★ Tor Wager
- ★ Jennifer Richeson
- ★ Cynthia Pickett
- ★ Elizabeth Phelps
- ★ Keith Payne
- ★ Lori Holt