UC San Diego
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Q&A with John Wixted

What do you find fascinating about the field of psychology?

Wixted: Fascinating is the right word. In fact, it would be fair to say that I am infatuated with my research. I guess what I find fascinating about psychology is the constant experience of discovering that the way the mind works is even more interesting than our best theories assume.

When trying to make sense of how memory works (which is my field of study), researchers are guided by competing theoretical accounts. Over time, one theory of memory seems more viable than another, but the evidence is rarely conclusive. Then an experiment occurs to you that might serve to effectively answer the question.

I can hardly convey to you the sense of excitement that accompanies an endeavor like that. It is *torture* waiting for the experimental results to roll in. Half the time, the results accord with neither theory, which is at first infuriating (because the preferred theory did not come out on top). Eventually, however, you come to realize that the painful truth is 10 times more interesting. That experience, which I have had a number of times over the years, is like an addictive drug in that you simply can't get enough of it.

How did you get interested in memory research?

Wixted: It was a pretty convoluted route. I was an undergraduate at UC San Diego (circa 1980), not knowing what I really wanted to do with my life. I started reading what various philosophers and psychologists had to say about how life ought to be lived on a day-to-day basis. Along the way, I found myself reading quite a few books written by clinical psychologists, and it occurred to me that a career in clinical psychology might hold my interest over the long term.

So I stayed an extra year at UC San Diego, double-majored in psychology and biology, and volunteered to work in several research labs. I had no interest in research, but all Ph.D. programs in clinical psychology require it. I was just doing time (so to speak), but then something happened that literally changed my life. I was working in the lab of Professor (now emeritus) Ben Williams. He was studying animal behavior, and I was running his experiments. One day, he told me to meet him in his office. He wanted to bounce an idea off of me that he had in mind to test competing theories of animal behavior. I don't remember any of the details of what he said, but what I do remember — very clearly — is what I was thinking, which was: "This is what professors do? They think about interesting theories and then devise clever experiments to find out which theory is correct?" I experienced that brief conversation as a profound revelation. From that day forward, I decided that I'd leave open the possibility of becoming a professor at a major research university.

I also took a class on human memory around this time, and I learned what some of the great thinkers of the past believed. I thought I might be able to prove them wrong and show that I had a better idea, so I set out to do just that for my dissertation research. This was my first foray into the field of memory. Perhaps not surprisingly, I ended up proving myself wrong, which was humbling. As I said before, the truth usually turns out to be more interesting you think.

What would you say is your proudest discovery about memory?

Wixted: I don't know if I would say that I am proud of my discoveries, but I guess it would be fair to say that I like some more than others. The findings from my lab that I like the most are the ones that have apparently vindicated ideas advanced by several giants in our field who made seminal empirical and theoretical discoveries in the 1950s and 1960s. These advances have been extremely influential in a variety of fields, including the field of diagnostic medicine. However, in psychology, there is a premium placed on discovering the NEXT BIG THING, even if it means capriciously tossing aside the brilliant work of our predecessors. It sometimes makes me feel like ours is not a cumulative science, unlike, say, biology, where I believe that new advances usually build on old advances. I'd like to think that experimental psychology could be more like that, so I like it when my research findings support and build upon some of the best-established theories from yesteryear.

Are there popular myths about memory you'd like to dispel?

Wixted: There is a myth I'd love to dispel, but it is so widespread that it is probably too late to change public perceptions. The myth, which actually comes from earlier research on eyewitness memory, holds that the confidence that someone expresses in an eyewitness decision is largely unrelated to the accuracy of that decision. That is, if you say, "That's the guy who did it, and I'm sure of it," the idea

is that you are scarcely more likely to be correct than when you say, "I think that's the guy who did it, but I'm not really sure at all." Research that seems to support this notion has led expert witnesses to testify in courts of law that high-confidence eyewitness testimony should be disregarded.

Eyewitness memory researchers made a gigantic blunder in their efforts to investigate this issue in the 1980s and 1990s. By itself, eyewitness identification of a stranger — even when made with 100% confidence — is not strong enough to be certain of guilt beyond a reasonable doubt. That's why you can find cases in which DNA evidence exonerates an innocent person. But the mistake that the researchers made was to suggest that confidence judgments from a witness are uninformative (thereby throwing out the baby with the bathwater).

Fortunately, the researchers' mistakes have been corrected in recent years, but I'm not sure public perceptions will catch up. For example, every time DNA evidence exonerates a person who was convicted on the basis of (incorrect) eyewitness testimony, it just reinforces the idea that eyewitness memory is completely unreliable. In truth, confidence judgments are very informative and very useful, and the fact that they are not perfect does not change that fact.

Any advice for people who struggle to remember where they left their keys or who want to forget something painful?

Wixted: Those are two different issues. To avoid forgetting where you placed your keys, you'll want to keep your brain in shape so that it remains good at making new memories. How do you do that? By working on crossword puzzles and such? No. The answer is as surprising as it is simple: aerobic exercise. The same thing that keeps your body in shape keeps your brain in shape. You definitely want to keep your brain in shape, and the only way to do it is to follow the advice you have heard a million times in your life — eat right and exercise. That's what keeps your brain working.

How do you forget something painful? The answer may be different for different people, but one general suggestion has emerged over the years. When you say you want to forget something painful, what you really mean is that you want to stop thinking about it. How do you stop doing that? Paradoxically, the effort devoted to avoid thinking about a painful experience may be what gives it power over you. Thus, a possible solution is to do the exact opposite of what you are naturally inclined to do. Instead of working hard to avoid thinking about the painful memory, set time aside everyday (e.g., 30 minutes per day for two weeks) to deliberately think about it. Some people find that, after doing this, the painful memory loses its power to spontaneously intrude. A variation on this technique is to talk to a therapist about the painful experience (which is another way of deliberately thinking about it).

How did you get involved with the Spring Valley Community Center after-school program?

Wixted: Before I can answer that question, I have to tell you about Charles "Renell" Nailon. He is the Recreation Supervisor at the Spring Valley Community Center, where he works with children, primarily kindergarten through 6th grade. In 2003, Renell started an after-school Reading & Book Club to facilitate the academic achievement of a diverse and underserved population. Shortly thereafter, he added a Math Club as well. At some point, Renell realized that, although his efforts to facilitate educational achievement in these young children were well intentioned, he did not have the expertise to measure the effectiveness of his after-school programs. So he contacted me in early 2009 to see if we could measure the effectiveness, and also to suggest that UC San Diego should use its world-class expertise to address local community problems. That statement hit me like a bolt of lightning, and I have been involved in this effort ever since. UC San Diego researchers have conducted studies designed to test whether different math and reading techniques are effective with this population, and the results are still being compiled.

We also formed the *UCSD Community-Based Research & Outreach Project (as we call it), which is a partnership between the Department of Psychology at UC San Diego and the Spring Valley Community Center. This effort includes outstanding after-school programs run by the UC San Diego Department of Music, and it also includes a new effort involving Sally Ride Science and the UC San Diego Center for Astrophysics and Space Science. They have organized an amazing project whereby the kids at the Spring Valley Community Center can take pictures of the moon by controlling a camera on a satellite that just went into orbit around the moon.*

This program involves both research and outreach. UC San Diego does a fair amount of community outreach (to its great credit), but the idea here is that it could devote a bit more of its research expertise to the local community as well. Although our project is a small-scale operation, imagine what we might be able to accomplish if we applied more of our phenomenal research expertise to the problems faced by the local community. Imagine that the whole UC system started doing more of that. We are not going to change the world with our project, but researchers across the UC system might be able to.

Why is community service important to you?

Wixted: *Renell reminded me that there is a local community that could use some attention from researchers at UC San Diego. He is an inspiring man with a big vision, and he keeps me doing what I should have been doing all along — using my expertise to help our local community. I have come to really value my partnership with him.*

What is your favorite childhood memory?

Wixted: *At the end of the 6th grade, I had earned two awards — one for not missing a day of school and the other for working on safety patrol. After the awards were printed, I rode my bike into a moving car and missed the last two weeks of school. My favorite memory is walking up to receive the attendance award (which was no longer valid) and the safety award (with my arm in a sling and my faced bruised almost beyond recognition due to the accident).*

Fun Faves

Favorite place at UC San Diego:
Revelle Plaza (which we called the "quad" when I was a student)

Favorite place on Earth:
The stretch of beach north of the Scripps Pier and beyond the rocks

Favorite part of your job:
I like teaching a lot, but I love my research

Favorite hobby:
Before I had kids, it was playing the classical guitar. Now it's watching my kids play competitive sports.

Favorite food:
Mexican (give me some tacos and enchiladas, and I'm in heaven)

Favorite way to spend $10:
Buying old — but still useful — textbooks over the internet.

Favorite words to live by:
The next time you do something really embarrassing, don't sweat it. Console yourself with the certain knowledge that the day will come when you do something even more embarrassing than that.

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