

Why Did You Study Psychology?

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Why did psychology's leading researchers take that first course? Was it the compelling advice of a master? Perhaps a sudden epiphany?

There's a story behind every good psychologist. A cross-section of psychologists were asked to share their stories and illuminate the heart of this career-making decision.

This series showcases the paths of psychologists in various disciplines from around the world.

Developing a Supertaste

By Linda M. Bartoshuk

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Bartoshuk

As a kid growing up in Aberdeen, South Dakota, I read science fiction and dreamed of astronomy. Junior high had a career day; students got to interview members of the profession to which they aspired. I asked for a scientist, but was assigned to interview a secretary.

In high school, when I signed up for math and science, my guidance counselor suggested these were unrealistic choices, but relented when I agreed to take bookkeeping and typing. Fifty-four words a minute later (not bad in the world before word processors) I still preferred trigonometry.

When it came time for college, I came in second in a math contest and won a slide rule (for anyone who has never used one, they are amazing little devices). I headed to Rapid City to tour the South Dakota School of Mines and Technology. Women were welcomed but few went, and I was not attracted to the prospect. Carleton College had a telescope and an astronomy major. The cost was daunting but a National Merit Scholarship came to my aid and I was off. Again, few women turned up in math and science, but we were treated well by our instructors.

Not so in the real world. I learned that some observatories banned women from using the telescopes; those big, complex machines were too much for us. I had had it. I remember the night my roommate and I sat with the Carleton course book and discovered that a psychology major would give me credit for all the math and science I had taken. Wow! As a junior I signed up for introductory psychology taught by John Bare, the new department chair. The class scintillated. When we got to psychophysics, I knew I was home. Astronomy had taught me that measurement of the perceived brightness of stars played a role in measuring the size of the universe. The farther away the star, the dimmer it appears from earth. If we only knew how bright it was at the source, we could calculate the distance.

One of the few women in astronomy provided the missing link; some stars pulse and we can see their brightness wax and wane. Theory related the periodicity of the pulsation to the absolute brightness of the star. We had the size of the universe! John Bare sent me to Brown University to study taste with his mentor, Carl Pfaffmann. Discovering that some supertasters live in neon taste worlds compared to nontasters (like me) who live in pastel taste worlds has brought me full circle. We cannot share experiences, so how could we discover that taste is more vivid to some? The missing link was a standard. If we could find some sensation that was not correlated with taste, everyone could express taste intensities relative to that standard. Assuming any variability in perception of the standard to be roughly equal across groups, we could compare tastes across groups. To my delight, one of the best standards we have tested is the brightness of the sun.

The Children Come First

By Patrice Marie Miller

Patrice Marie
Miller

It is hard to choose a major or a career when you have never really been exposed to it. Thinking back, though, it seems as if the issues that I am involved in as a developmental psychologist started as early as ninth grade. At that time, I was living in Rio de Janeiro, Brazil. Rio, then as now, was a city full of natural beauty and poverty. In the ninth grade I worked on a project started by my history professor, in which we visited one of the favelas (the hillside slums) on Saturdays and engaged in games and crafts activities with the children. The idea was to try and have a positive impact on their development by giving them something constructive to do and some contact with other models for doing things.

Based on that experience, I decided that I wanted to do something that would have a positive impact on the lives of children, especially poor children. In high school and the early years of college, I tried different ways of having an impact on the lives of children, such as tutoring in East Harlem and working as a teacher's assistant. I enjoyed these experiences in many ways, but I felt as if we did not know enough about how children developed to know how best to help them.

My senior year at New York University, I was still wondering what to do. I thought I might teach for a few years – perhaps back in Rio – while I figured out my future. The August before senior year, while at a psychological meeting with my mother, a school psychologist, I met a professor teaching behavior analysis at NYU. Second semester of that year, I worked with him on a research project involving autistic children. This experience pushed me into thinking of a different kind of career, one as an academic psychologist. I enjoy the problem solving involved in planning, carrying out, analyzing and writing up research. Thinking out issues and having things work out the way you had hoped is a special kind of thrill that I only experienced when I began to do research.

When I finished my BA, I still was not ready to forge ahead. First, I had to go back and learn some of the mathematics I had managed to duck. During this time, I worked on several research projects, along with my psychologist husband (surely, also, a reinforcing influence in all this). When we moved to

Cambridge, Massachusetts, I obtained my doctorate in human development from Harvard's Graduate School of Education. My dissertation on very young infants' reactions to being taken care of by a stranger versus their mother was an attempt to look at whether and in what ways young infants differentiated between their mothers and other caregivers. It was the first of several projects I have been engaged in since on early social and emotional development of children. Teaching, which I also do, allows me to communicate some of my passions to newer students.

The way I think about it now is that my work ideally combines intellectual activities that I greatly enjoy, with an opportunity to work on issues in a field that, as a whole, I believe makes a difference in the lives of children.

Clinical Cognition

By Teresa Treat

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Throughout my undergraduate and graduate years at Indiana University, I was inspired by Dick McFall's vision of an integrative psychological science. Dick spoke eloquently about a new generation of clinical scientists who were fully trained in both clinical and cognitive science, or in clinical and neural science, such that they were viewed as legitimate in both fields. And he wondered whether such hybrid scholars would view psychopathology from a novel vantage that might help to move forward our understanding, assessment, and treatment of psychological problems. I tested the waters by taking a mathematical psychology course with Jim Townsend during my first year in the clinical-science program. The course damn near killed me – granted, this is not an uncommon experience in a Townsend course – but Jim was unfailing in his support and encouragement, and I emerged with numerous ill-formed notions about the potential utility of formal mathematical modeling of clinically relevant cognitive processing.

In the meantime, McFall, Rick Viken, and I had begun developing photo stimulus sets that would allow us to use cognitive-science models and methods to investigate men's perceptions of women's sexual interest (with implications for our understanding of acquaintance-initiated sexual aggression), as well as women's perceptions of other women's shape- and weight-related information (with implications for our understanding of eating disorders). The resulting photo stimulus sets were a far cry from the simpler, well-controlled stimuli that cognitive scientists typically used to investigate normative cognitive processes. Thus, it was unclear whether the principles and paradigms developed in this more highly controlled context would generalize to the messiness of investigations of clinically relevant individual differences in complex social perception.

As the work progressed, I became accustomed to hearing cognitive scientists insist that "those are the most uncontrolled stimuli I've ever seen!" In contrast, of course, many clinical scientists claimed that they were "the most over-controlled stimuli" they'd ever seen. Fortunately, Rob Nosofsky, John Kruschke, and David MacKay – as well as two extremely gifted graduate students at the time, Tom Palmeri and Mike Erickson – worked with us every step of the way on these two lines of research and

spent countless hours training me in the rudiments of multidimensional scaling, formal models of categorization and learning, and computational modeling.

Eventually, I had completed all the coursework necessary for a joint degree in clinical and cognitive science, but I had yet to declare my additional major. It felt presumptuous to call myself a clinical-cognitive scientist, because that implied that I was a “real” cognitive scientist as well as a “real” clinical scientist. The latter had been a central piece of my academic identity for years, but I had yet to recognize the former. Three years of working side by side with cognitive students in Kruschke’s lab finally changed this. And then one day, when I was musing out loud in the lab about whether to declare the joint degree, one of my lab mates challenged me by saying, “What’s wrong with you? You’re as much a cognitive scientist as the rest of us.” Soon thereafter, I remember nervously marching upstairs to the cognitive-science office to officially declare the joint major and choose a career as a clinical-cognitive scientist – long after I already was living and loving a career in McFall’s “integrative psychological science.”

Defining a Career

By Milton D. Hake

Milton D. Hake

It wasn’t pretty. It wasn’t easy. But especially in the perspective offered by the passage of over 40 years, choosing a major, then choosing to pursue graduate study, and then deciding study for the PhD was a chaotic, sometimes frantic, and always exciting process.

As a teen, I knew I wanted to go to college, but I had no clear direction in mind. When I was a high school junior, I wanted to go anyplace but the University of Minnesota. After investigating the costs, and considering my grades (which made me a weak competitor for scholarships), dissonance reduction worked its magic and I applied only to the University of Minnesota. It was a fortunate application (and acceptance), and I have always appreciated the excellent and challenging education I received there.

As an undergraduate beginning in 1959, I ran through a succession of 12 declared and undeclared majors, hoping to find something that could suit me for the long run. Some majors lasted as little as three weeks, until I got the results of a mid-term or final that I interpreted as a signal to apply my efforts elsewhere. Other majors lasted much longer, and I graduated with a double major in philosophy and psychology. But by my senior year I knew I wanted to pursue graduate study in psychology. Many small but significant events led to that career direction.

As a third-quarter freshman, I talked my way into a limited-enrollment honors section of an introductory laboratory course (my grades put me just below the formal cut score). The course offered hands-on experience in research. In trios we collected data to replicate a one trial learning experiment originally published by William K. Estes, and individually we analyzed and reported the findings. I concluded that I could learn how to design and conduct research. All three of us in my group eventually earned PhDs, and it was a special pleasure many years later to actually meet Estes, when he became the editor of

Psychological Science (I was part of the original APS Publication Committee that invited him to be the founding editor).

As a junior I quit commuting and moved on campus, meeting that first day a delightful and spirited woman who I became my wife within a year. I took two courses in individual differences; in retrospect, they are the most important courses I ever had – thank you Jim Jenkins and Marv Dunnette. The issues I first studied there continue to animate scientific discourse and public policy: testing and learning, heritability, group differences. I also took a course in vocational guidance, and heard about “varch” as an attribute of a career, variety, and change. I knew this was what I wanted, and guessed that a career in research would offer it.

I hung out in the psychology building, getting to know graduate students and some faculty. When an opening occurred for an undergraduate teaching assistant (they needed someone to sharpen mark-sense pencils and do other tasks too menial for graduate students), I applied and got the job, and my exposure to psychology and psychologists expanded.

As a senior in 1962-63 I did a voluntary research project under Dunnette’s guidance. The work I did in that “job sample” was sufficient as a demonstration of capability to get me into graduate school. I applied to only one, but my grades and scores were borderline, so I was admitted on probation (the US Air Force was my other “employment” option, and one could already see that the Vietnam War was getting ugly). The senior project eventually became my first publication.

In graduate school to pursue a master’s, I found it considerably surprising when I was invited at the end of my first year to bypass the MA and work directly toward the doctorate. I became interested in how people form impressions of others and use those impressions to make consequential decisions, such as who to hire. The topic was partly a consequence of having been interviewed by about 50 different potential employers (and being rejected by 40 of them) while looking for summer jobs. I completed the degree, and research that Dunnette and I proposed was supported by the National Science Foundation in 1966. I stayed at Minnesota for two years as a postdoc, and then moved to Ohio State, Houston, and Bowling Green.

My experiences sensitized me to the fallibility of predictors and the need to devise effective and equitable systems for 1) selecting employees/admitting students, and 2) enabling people to develop their capabilities fully. These continue to be engaging issues.

So in defining my career I redefined a few key words. Chaos – going from no direction through 12 majors to one. Frantic – marrying while still an undergraduate, having two children while in graduate school, and worrying about employment and the draft raised occasional anxieties. Excitement – enough for a lifetime, and that was just the beginning.