

Inside: Preview of the 24th Annual APS Convention

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Stars on the Rise

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Douglas L. Medin
Northwestern University



Subject to Participation

The following events took place a bit more than a decade ago. Norbert Ross, who was a postdoctoral fellow at the time, and I were appearing before the Menominee Language and Culture Commission in Keshena, Wisconsin to ask for permission to conduct studies on children's understandings of biology. We had previously received approval from the Menominee Tribal Legislature for studies with hunters and fishermen, and we expected things to go smoothly. Norbert and I explained that our research assistants would be Native Americans (mainly Menominee), and that we would make a donation to the schools for each child who participated in a study.

After our presentation, one elder said, "The Menominee have been studied too much." She did not go into any detail, but several other commission members nodded in agreement. Norbert and I described the potential benefits to the tribe (for example, we suggested that our studies might eventually help improve science education). After we finished, a vote was taken, and the commission members were evenly split: four in favor and four opposed. The Chair of the committee broke the tie in our favor.

Have the Menominee been studied too much? What did this elder mean? She had an important point to make, though but for me, it was not obvious from the onset what the point was. Later on, I visited her several times (Initially bringing coffee as a sign of respect and, after I learned that oatmeal raisin was her favorite kind of cookie, I would bring those as well) and as we talked, gradually I was able to grasp what she was getting at.

There is a long history of research in Native American communities that, to say the least, has often not been in their best interest. Some studies have portrayed tribes through a deficit lens, focusing on problems rather than sources of resiliency and, in effect, blaming the victims. It is not an exaggeration to say that "research" almost has the status of a dirty word in many Native communities.

At the heart of the issue — in my opinion — are power relations and unequal benefits. When I began doing research with Menominee participants it seemed perfectly fine for a graduate student to complete his or her dissertation by paying participants generously, seeking appropriate tribal approvals, and employing Menominee research assistants whenever possible. Now it doesn't seem so fine. For one thing, in a broader context,

the money seems less generous: Spending a thousand dollars on participants seems a pretty modest cost relative to the value of a PhD. More importantly, there is the issue of ownership and control over the research.

My thinking about what is owed to participants has changed dramatically since I started doing cross-cultural research and studies in Native American communities. The Menominee have been studied too much by outside researchers who benefit asymmetrically from the exchange. At the same time, tribes and intertribal communities, such as the American Indian Center of Chicago, have a great need for indigenous scholars who can apply for grants, build research infrastructure, and bring relevant expertise to bear on policy issues.

Power sharing is needed to develop meaningful research partnerships. Thanks to good fortune and a very substantial amount of leadership from Native scholars like Megan Bang and Karen Washinawatok, we have been able to establish research partnerships with Native American institutions for the work conducted over the past decade on the Menominee reservation in Wisconsin and in Chicago. For example, our grants have involved collaborative submissions by Northwestern University, the American Indian Center of Chicago, and a tribal college as well as other institutions on the Menominee reservation. It is to the credit of the National Science Foundation that these partnerships do not involve subcontracts from Northwestern University to tribal institutions but rather parallel budgets with a Principal Investigator at each site.^{1,2} The Menominee Language and Culture Commission still reviews our work, but now we are seen not so much as outsiders but rather as part of a team. And the exchange is much more symmetrical in benefits.

Now let's shift contexts. When you read the first paragraph you

¹ I don't know how easy this sounds, but it isn't so easy in reality. Most major research universities have at least half a century's experience administering grants, negotiating indirect costs agreements, and the like. In contrast, tribal institutions typically have much less experience in these areas. One area in which I am proud of Northwestern University is its willingness to provide advice and training in the service of fostering tribal sovereignty in research administration.

² There may be many ways of combating an inherently unequal exchange. Scott Atran has headed a team of scholars conducting research in Guatemala for the past two decades, where the indigenous Itza' Maya do not have institutions that could support collaborative research. Nonetheless, Scott has helped the Itza' set up a language school and also helped to develop a forest preserve (the Bio-Itza'). He also supported their efforts to establish sovereignty.

Douglas L. Medin is a professor at Northwestern University. He can be reached at medin@psychologicalscience.org.

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Ovid Tzeng

Ovid Tzeng Receives Golden Bell Award

APS Fellow **Ovid Tzeng** is a tireless advocate for popular science education in Taiwan. Between introducing *Scientific American* to Taiwan and urging scientists to give lectures to high school students, he co-hosts a radio show called *Science for Everyone*. Tzeng and co-host Su-Yen Lai were recently awarded a Broadcast Golden Bell Award by the

Taiwanese Government Information Office for their work.

Science for Everyone debuted in 2010. Through the program, Tzeng has helped scientific ideas reach a broad audience by highlighting how science applies to everyday life. In addition to his efforts in science education, Tzeng, who is a fellow at Academia Sinica in Taiwan, is known for his influential research on dyslexia and on how the brain interprets Chinese characters.

Recently named minister for the Taiwanese Council of Cultural Affairs, Tzeng hopes to promote projects in which art and science can be combined. "Taiwan needs not only universities, but university culture," he says, "and not only scientists, but science culture."

Anti-Prejudice Campaigns Do More Harm Than Good?

A study in an upcoming issue of *Psychological Science* demonstrated that some anti-prejudice campaigns are not only ineffective, they may actually encourage prejudice.

The researchers found that *autonomy-focused* interventions, which emphasize anti-prejudice as a personal value, can effectively reduce prejudice. But *controlling* anti-prejudice messages, which focus on what people should and shouldn't do, may actually increase prejudice.

In one experiment, the researchers asked participants to read anti-prejudice brochures with either a controlling or an autonomy-focused message. A third group read no brochure at all. Then, a questionnaire was used to measure prejudice. Participants who read the autonomy-focused brochure displayed less prejudice than did the other two groups. However, participants who had read the controlling brochure actually displayed more prejudice than those who read no brochure at all. Similar results were obtained in a second experiment.

Based on the results, the authors suggest that organizations should concentrate on emphasizing the personal benefits of diversity and nonprejudice, and avoid interventions that use pressuring language or prescribe specific, strict outcomes.



APS Fellows Win Prestigious Grawemeyer Award

APS William James Fellow Award Recipients **Leslie Ungerleider** and **Mortimer Mishkin** have been awarded the 2012 Grawemeyer Award in Psychology. They were selected for the prize from more than 20 nominations, and they will receive \$100,000 in recognition of their influential work.

The two National Institute of Mental Health (NIMH) researchers were honored for their pioneering work on visual processing in the brain. Ungerleider and Mishkin were the first to show that the brain uses separate visual processing systems to recognize what objects are and where they are located. This *two-streams hypothesis*, which first appeared in *Behavioural Brain Research* in 1982, has influenced numerous studies across many fields of psychological science, including memory, cognition, and sensation and perception.

Ungerleider is currently chief of the Laboratory of Brain and Cognition at NIMH and an NIH Distinguished Investigator. She was the 2001 recipient of the Women in Neuroscience's Lifetime Achievement award and a 2010 recipient of the APS William James Fellow Award.

Mishkin is chief of the cognitive neuroscience section of the Laboratory of Neuropsychology at NIMH and is an NIH Distinguished Investigator. He was awarded the National Medal of Science in 2010 and received the APS William James Fellow Award in 1989.

Both Ungerleider and Mishkin will receive their awards and present a talk on their award-winning research on April 10, 2012 at the University of Louisville.



Leslie Ungerleider



Mortimer Mishkin

A Dynamic Approach to Neurodevelopmental Disorders

Before working with Jean Piaget, **Annette Karmiloff-Smith** was a conference interpreter who thought psychology was just about reaction time and questionnaires.

“Piaget made me discover that [psychology] was about everything from logic to epistemology, philosophy, science, and absolutely every topic seemed to come into psychology,” says Karmiloff-Smith. “I got really enthusiastic.”



Annette Karmiloff-Smith

Now Karmiloff-Smith is a professorial research fellow at the Centre for Brain and Cognitive Development at Birkbeck, University of London. She is an expert on neurodevelopmental disorders, specifically Williams Syndrome — a rare genetic disorder characterized by moderate learning difficulties and a distinctive facial appearance.

Coming a long way since her early work with Piaget, Karmiloff-Smith has proposed a dynamic model for neurodevelopmental disorders. Using a static model (in which researchers look for parts of the brain that are damaged compared to a normal brain), she argues, is inappropriate for developmental disorders. Because deficits arise during development before children's brains have formed specialized domains, Karmiloff-Smith has shown through her Williams Syndrome research that the impairments — some subtle, some more obvious — in these disorders can be linked to multiple domains.

At the APS 24th Annual Convention in Chicago, Karmiloff-Smith will be speaking about how double dissociation can be demonstrated between two neurodevelopmental syndromes. But then Karmiloff-Smith says, “I’ll unpick that and show how the same data can be analyzed in a totally different way showing that the deficits and proficiencies have common starting points, and that they diverge over time, and that it’s not a double dissociation but very low level impairments that give rise to changes over time.”

For more on Karmiloff-Smith’s research and her upcoming talk in the Cross-Cutting Theme Program Biological Beings in Social Context, watch our interview with her: www.psychologicalscience.org/observer/karmiloff-smith.

Researchers Say Drugs Can Boost Cognition, But Only So Much

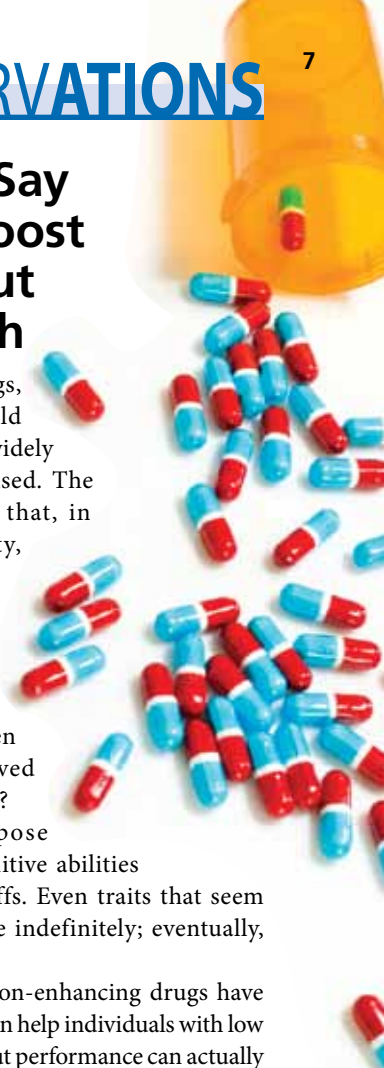
Cognition-enhancing drugs, once restricted to the world of science fiction, are now widely available and commonly used. The prevailing assumption is that, in terms of cognitive ability, more is better. But a study in the December 2011 issue of *Current Directions in Psychological Science* raises an important question: If more *is* better, then why haven’t humans evolved into super geniuses already?

The researchers propose that optimal levels of cognitive abilities are determined by trade-offs. Even traits that seem advantageous can’t increase indefinitely; eventually, they’ll level off.

Many studies of cognition-enhancing drugs have shown that drug treatment can help individuals with low baseline cognitive abilities, but performance can actually decrease among people who are predisposed to perform well. For example, controlling attention requires a specific amount of focus, not too much and not too little. Attention-enhancing drugs, such as amphetamines, can disrupt this balance.

Cognitive functions can also be interdependent, and increases in certain cognitive abilities can cause decreases in other, important domains. Savants with extraordinary working memory may be unable to detect trends or make generalizations. Similarly, if you drink a lot of coffee, your focus will probably improve, but you’ll also experience increased anxiety and a loss of fine motor control.

Cognition-enhancing drugs offer the promise of better mental performance — but research indicates that your unenhanced abilities, fine-tuned by evolutionary selection, may actually serve you better without a boost.



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Michael Tomasello Honored for Influential Cooperation Research

On December 2, 2011, **Michael Tomasello** was awarded the Klaus J. Jacobs Research Prize in a ceremony held at the University of Zurich. The prize included an endowment of 1.2 million Swiss francs, which will support Tomasello's research on cooperation between young children.



Michael Tomasello

By studying 1- to 4-year-old human children as well as chimpanzees, gorillas, and orangutans, Tomasello has provided groundbreaking insights into cooperation and how it influences cognition.

Tomasello and his collaborators have tested the cognitive skills of human infants and non-human apes of the same age. The infants didn't outperform the apes on tests related to space, quantity, or causality. However, they did outperform the apes on tests related to social skills. Tomasello proposes that this propensity to cooperate serves as the basis of human language and humans cultural groups.

The Klaus J. Jacobs Research Prize will allow Tomasello to explore new directions in his research. "The money allows you to do some research things that you wouldn't otherwise be able to do," he said in a press statement from the Jacobs Foundation. "In particular, it allows you to plan larger research projects with a greater time horizon."

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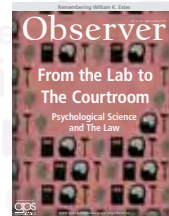
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APS Award Address

The Brain Can Be Trained

Get smarter fast! This message sounds like the tagline of a late-night infomercial. But when it comes from the mouth of cognitive psychologist John Jonides of the University of Michigan, it carries more weight. In his William James Fellow Award address at the 2011 APS Convention, Jonides described how proper training can increase an individual's intelligence.

"Fluid intelligence is often thought to be highly heritable, and some people draw the conclusion that it is immutable," said Jonides. "I hope to disabuse you of that idea today."

Fluid intelligence is generally defined as the ability to solve problems that require more than mere fact retrieval, such as seeing a matrix of images with one open space, and then deciding what new image fits best in the empty spot. One of the key cognitive components of fluid intelligence is working memory, or the ability to retrieve information easily despite distractions. By strengthening working memory, a person might, by extension, strengthen his or her fluid intelligence.

That question drove Jonides to teach people a working memory task known as the "n-back." A typical n-back might include a series of black squares dotted with white marks in different corners. In a "one-back" task, a person must identify when a particular square is repeated one square later. (If a white dot appears in the lower-left corner of the black square in Image 3, then again in Image 4, the person would recognize this series as a positive one-back.) As the training progresses, the amount of space between repeated items increases. So a person who masters the one-back task will move on to the two-back, then the three-back, four-back, and so on.

In new research published in *Proceedings of the National Academy of Sciences* one month after his address, Jonides and his collaborators tested children for fluid intelligence and trained some of them with the n-back task. (For this research, the n-back task was converted into video game format, so the children, who had an average age of 9, would not get bored.) After the training, the researchers measured fluid intelligence again and then brought the children back three months later for one final intelligence exam.

The children who did well in the n-back training improved their fluid intelligence scores, Jonides reported, and this improvement was maintained three months later, even with no additional training. These children also scored better than did those who received training that didn't exercise their working memory.

The results suggest that working memory tasks can directly strengthen a person's intelligence, similar to the way that a drug helps the body fight an ailment. The findings "heartened us about the possibility of being able to improve fluid intelligence in much the same way that pharmacological agents might be used



Mahzarin Banaji (President 2010-2011) and William James Fellow Award recipient John Jonides

to improve some pathological condition," Jonides said.

More recently, Jonides has used imaging technology to understand what parts of the brain are responding to tasks like the n-back. In one study, researchers measured blood flow to the brains of participants performing the n-back, and then took another set of measurements after a week of training. What they found was a reduction in blood flow to brain areas that are necessary for completing the task — evidence that these regions had become more efficient and therefore "require less blood flow during task processing," Jonides said. At the same time, they saw increased blood flow in these brain regions when the person was at rest in the scanner.

This data led Jonides to compare the brain to a muscle that can be trained. After all, if a person can grow new striated muscle as a function of training, they will have increased blood perfusion to the muscle even when they're resting. Though the muscle analogy is not perfect — the finding about decreased blood flow during the task goes against what occurs with exercised muscles — what is clear is that a person can improve fluid intelligence by training working memory.

"Even if these cognitive skills are highly heritable, and by some estimates they are, that doesn't mean they're not changeable," Jonides concluded. "There can be influences of the environment that can improve such things as fluid intelligence." •

—Eric Jaffe

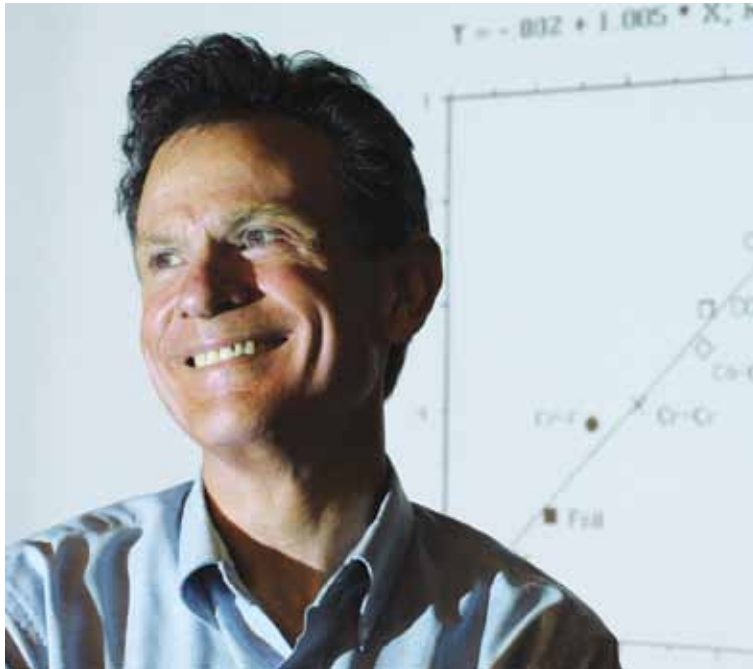
Remembering William P. Banks

By Janet L. Jones

William P. Banks, professor of psychology at Pomona College and Claremont Graduate University, died this spring after a brave battle against scleroderma. Founding editor of the journal *Consciousness and Cognition*, consulting editor of the *Journal of Experimental Psychology*, and author of over a hundred articles and books, he is best known for pioneering the use of signal detection theory to analyze memory, applying the techniques of psychophysics to alcoholism, and exploring post-hoc inferences of free will. He also published studies of internal speech recoding, motion cues in visual illusion, volitional effects on criminal behavior, cultural differences for personal boundaries, iconic memory decay, philosophical qualia, brain asymmetries in lexical congruity, and the basis of human evil. Bill loved breadth.

In 42 years of teaching, Bill quietly shaped the early careers of many cognitive scientists. I met him in the “Perception and Cognition” course that he offered from 1969 to 2010. After three years as his student and TA, he asked if I’d ever considered becoming a cognitive psychologist. The first person in my family to attend college, it was like being asked if I might become a fish — impossible! But in his unassuming way, with an offhand comment now and then, Bill built his case: You’ll be paid for your intelligence, your work ethic will be valued, and you’ll be free to choose your topics. You have nothing to fear, he claimed, you can handle the work and get a fellowship.

Janet L. Jones is an APS Charter Member and Professor Emerita of psychology at Fort Lewis College. She is the author of multiple books, including the textbook *Understanding Psychological Science*. Comments on this article may be sent to jones_janet@fortlewis.edu.



William P. Banks

I had never heard that word. Faced with my incredulous expression, Bill explained that the best universities in the world might pay me to be their student. He steered me through the potholes of graduate school application, then cheered me

on through the PhD, my first article, my first book, and my first job. He believed in me more than I believed in myself, and through his confidence I gained mine. There is no greater gift, and he gave it to hundreds of his students.

Bill had a special talent for inspiring originality. Inviting faculty, graduate students, and undergrads to his lab meetings, Bill expected good ideas from everyone and offered so many of his own that we could hardly keep track. The result was a flood of creativity that buoyed the careers of count-

less budding psychologists. When a new result surprised, delighted, or dismayed him, Bill would throw his arms up in a gesture of faux despair, releasing a sharpened pencil that lodged in the acoustic ceiling tiles above his head. Entering his office, we had only to glance at the ceiling to assess the state of science by counting the pencils. He fostered a sense of camaraderie among us, an openness and warmth that I have never experienced elsewhere in 30 years of academic life.

The infamous Professor Banks also taught aerobics at Pomona College, bringing teenaged super-grunts to their knees panting for breath, while he — in his forties, fifties, and sixties — worked on tirelessly, shouting over his mix tapes and dancing with wild abandon. His music ranged from Sam the Sham to Jimi Hendrix, and Jimmy Buffett’s “Cheeseburger in Paradise” was an all-time favorite. I picture Bill today enraptured with a new idea — pencil flying, music pounding, cheeseburger poised — with a wide smile on his face and with a thousand cognitive scientists trying to keep up. ●

Despite Occasional Scandals, Science Can Police Itself

By Alan G. Kraut

Due to the fraud investigation of Diederik Stapel, psychological science has recently been put under a magnifying glass, and questions (both fair and unfair) have been raised about the integrity of the field. APS Executive Director Alan Kraut addressed some of these questions in a commentary for the December 9, 2011 issue of The Chronicle of Higher Education. We have reprinted his column below.

The public has always been fascinated with the scientific mind, including its corruption. So it is no surprise that the sordid case of the Dutch researcher Diederik Stapel grabbed headlines for a few days, including prominent stories in *The New York Times*, *Los Angeles Times*, *Chicago Tribune* and this publication [*Chronicle of Higher Education*]. The news stories came after the journal *Science* expressed concern about one of Stapel's published papers, which is under investigation for data tampering.

It is already clear that this one suspicious paper is just the tip of the iceberg. In fact, Stapel had been under fraud investigation for some weeks when the news stories broke. The investigation, by Tilberg University in the Netherlands, where Stapel was until recently a professor, could lead to the retraction of dozens of papers by the social psychologist, published over a period of 10 or more years. Stapel outright lied to his colleagues, including many students, claiming he had data sets that could be used legitimately in experiments they worked on together; in fact such data never existed.

Stapel has owned up to his fraudulent acts, and voluntarily relinquished his PhD. Before this is over, it is likely that dozens of papers by his guiltless students and colleagues will be withdrawn as well, and their PhDs called into question. My organization, the Association for Psychological Science (APS), represents the interests of scientific psychologists, and so is centrally involved in this issue. But the association is also directly affected: A few of Stapel's articles were published in our flagship journal, *Psychological Science*.

Such egregious cases are rare, and they are harmful to the scientific enterprise. But it's important that they be recognized as the aberrations they are. Science is not immune to lying and cheating, any more than banking, medicine, or the law. It is also worth noting that Stapel was caught. True, he did get away with his intellectual crimes for far too long, embarrassingly so, but in the end it was the suspicions of his colleagues and students that exposed him. Scientific inquiry is guided by a set of laboratory conventions and publishing rules that promote integrity and minimize the publication of false conclusions. This is equally



true of all the sciences, just as it is true that all the sciences have been vexed by scoundrels.

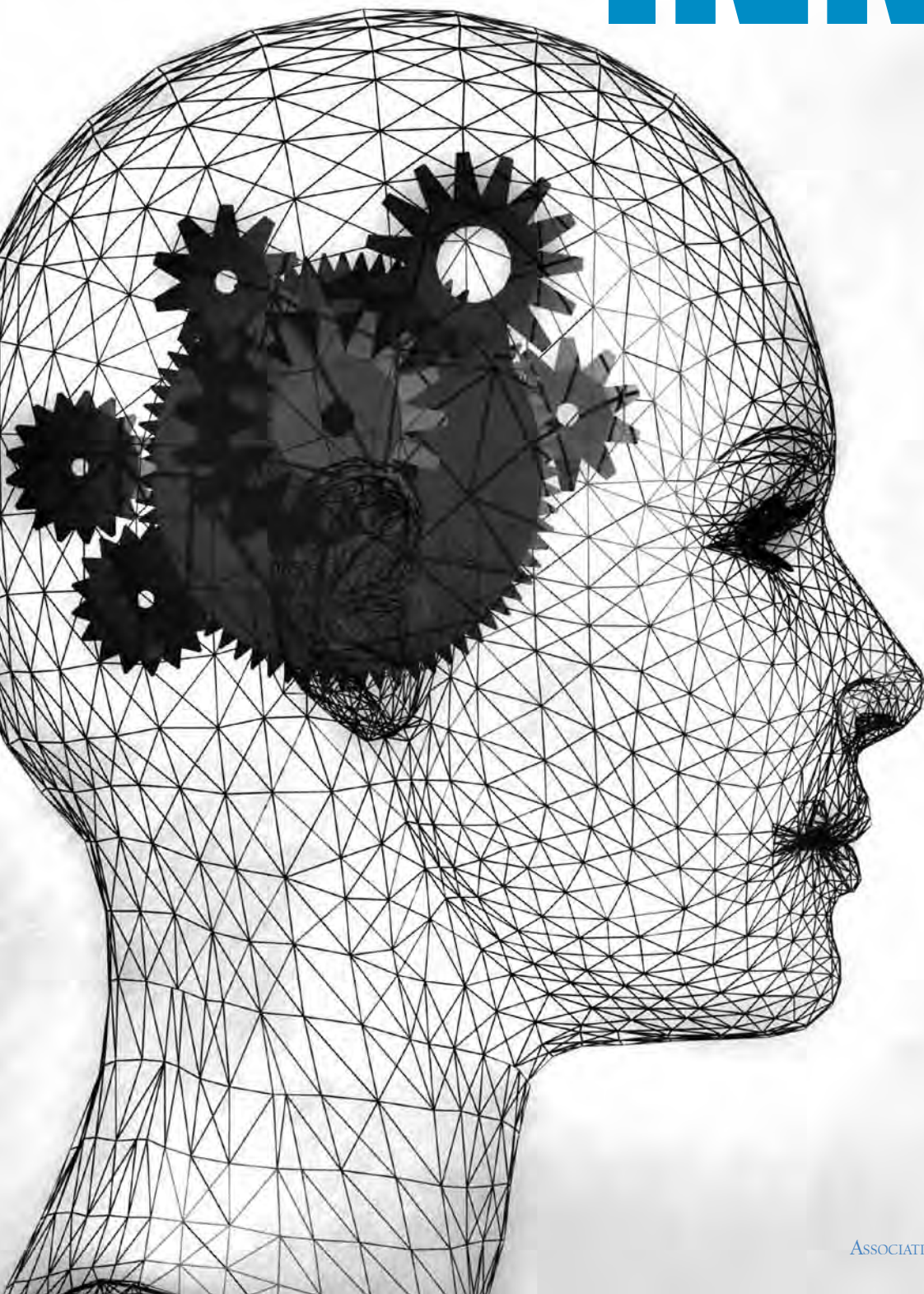
Is this system perfect? Not by a long shot, but what's important is that the system is constantly under scrutiny by scientists themselves, who use the tools of science to expose and correct its flaws. Most of these flaws and concerns are undramatic — not the stuff of headlines. For example, we just published one paper (<http://pss.sagepub.com/content/22/11/1359.full>), and will soon be publishing another, that takes the field to task for some common but questionable research practices. The first, by scientists at the University of Pennsylvania and the University of California at Berkeley, demonstrates how some widely accepted methods for reporting and analyzing data can lead to an unacceptable rate of false positives, which are results that appear to be valid, but in fact are not. This paper explains how simple things — like not reporting all dependent variables or conditions, or changing the original number of research subjects during the course of an experiment, or ignoring results that seem oddly random or unrelated to any hypothesis — can artificially boost false positives.

The second paper actually demonstrates that these practices are used in the nation's most elite labs more commonly than has been previously acknowledged. The study (<http://www.psychologicalscience.org/john-et-al-manuscript>), by scientists

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WORKINGS OF DECISION MAKING

By Eric Wargo

Hardly a minute goes by in our lives when we don't make them. Decisions can be as small as our choices of words or what to have for lunch, and they can be as big as how to plan for retirement or what treatment to choose for a disease. They can balance certainties against risks. They can balance short-term gratification against long-term benefits. They can clearly be right or wrong — but often enough, they involve likelihoods and possibilities that are uncertain, even in the light of all available information. ►



Psychological scientists have been interested in how people make decisions for several decades, but philosophers and economists have been studying decision making for centuries. The most famous scholarly consideration of making a decision in cases when all the facts aren't on hand is that of Blaise Pascal. In 1670, in his *Pensées*, the French philosopher articulated what was, in his time, a pretty profound dilemma for rational people: to believe or not believe in the existence of God. Pascal reasoned it out this way: If God exists, belief in Him will mean eternal salvation. If He doesn't exist, Pascal said, one loses nothing by believing. So the choice was clear: Believing is the safest bet. And if you don't believe, you should *pretend* to believe, because in so doing you might come around to genuine belief in time.

Pascal's famous wager is the first formulation of what in the study of decisions came to be known as the theory of *expected value*: When faced with a choice between uncertain alternatives, you should determine the positive or negative values of every possible outcome, along with each outcome's probability, and then you should multiply the two and choose the option that produces the highest number.

It sounds simple, but choices in the real world are seldom that cut-and-dried. Expected value was given more nuance by Daniel Bernoulli in 1738 with his theory of expected *utility*. Along with the values and probabilities of different uncertain outcomes, the Dutch-Swiss mathematician noted, there are two individual factors that would also be taken into account by any rational decision maker — his or her comfort with or aversion to risk, and the utility of a given payoff depending on his or her preferences or needs. Value, in other words, isn't an absolute. For example, a small monetary gain would be of greater utility to a poor person than to a rich person, and thus their decisions in a gamble could be entirely different but equally rational.

From Economics to Psychological Science

The prediction of social behavior significantly involves the way people make decisions about resources and wealth, so the science of decision making historically was the province of economists. And the basic assumption of economists was always that, when it comes to money, people are essentially rational. It was largely inconceivable that people would make decisions that go against their own interests. Although successive refinements of expected-utility theory made room for individual differences in how probabilities were estimated, the on-the-surface irrational economic behavior of groups and individuals could always be forced to fit some rigid, rational calculation.

The problem is — and everything from fluctuations in the stock market to decisions between saving for retirement or purchasing a lottery ticket or a shirt on the sale rack shows it — people just aren't rational. They systematically make choices that go against what an economist would predict or advocate.

Enter a pair of psychological scientists — Daniel Kahneman (currently a professor emeritus at Princeton) and Amos

Tversky — who in the 1970s turned the economists' rational theories on their heads. Kahneman and Tversky's research on heuristics and biases and their Nobel Prize winning contribution, *prospect theory*, poured real, irrational, only-human behavior into the calculations, enabling much more powerful prediction of how individuals really choose between risky options.

One keystone of prospect theory is *loss aversion*, or the discovery (based on numerous experiments reported in a classic article in the journal *Econometrica*¹) that winning \$100 is only about half as appealing as losing \$100 is *unappealing*. The idea that the relationship between value and losses/gains is nonlinear — or put more simply, that “losses loom larger than gains” — is important for decisions involving risks, and opens the door for *framing effects*, in which the context and phrasing of a problem can influence a person's choice.

Something as simple as whether a problem is phrased in terms of winning or losing can radically affect our decisions. In one of their studies, Kahneman and Tversky presented two groups of participants with a choice involving hypothetical medical treatments for a deadly disease. The first group was told that if a certain treatment was given to 600 people with the disease, 200 people's lives would be saved; if they were given another, riskier treatment, there was a 1/3 chance that all 600 would be saved and a 2/3 chance of saving no one. The second group was given the exact same choice, but it was framed in terms of lives lost instead of in terms of lives gained: The certain option meant 400 people would die for sure; the risky treatment meant a 1/3 chance no one would die and a 2/3 chance all 600 would die. The majority of the first group chose the certain option: saving 200 people. The majority of the second group chose the risky option, gambling on the prevention of all the deaths even though it was only a 33% shot.²

In short, the terms you use to present a problem strongly affect how people will choose between options when there are risks involved. As shown in the medical treatment problem, people may seek a sure solution if a problem is phrased in terms of gains, but will accept risk when a problem is phrased in terms of (potentially) averting a loss.

Taking Shortcuts

Real-world problems are often complicated — it's tough to think objectively about all the variables, and often enough we just don't know what the odds of different outcomes are. Our brains are naturally wired to reduce that complexity by using mental shortcuts called *heuristics*. Kahneman and Tversky and other researchers have identified numerous ways humans simplify decisions via heuristics and the biases such shortcut-thinking can produce.



Daniel Kahneman

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One important heuristic is known as *representativeness* — the tendency to ignore statistics and focus instead on stereotypes. For example, Steve is described by a former neighbor as a helpful but shy and withdrawn soul who loves structure and detail and takes little interest in people or the real world. When faced with a list of possible occupations that includes farmer, salesman, pilot, doctor, and librarian, people tend to predict Steve is a librarian because he fits a commonly held stereotype. They ignore what ought to be an obvious fact — that there are many, many more farmers in the world than there are librarians. Ignoring base rates, as well as other statistical blind spots like not paying attention to sample sizes and simple misconceptions concerning chance, can lead to serious errors in judgment.³

Another heuristic, known as *anchoring*, is people's tendency to stay close to a starting point when making an estimate — even when they know that the starting point could be way off the mark. In one experiment, a wheel was spun in front of participants, yielding a number from 1 to 100; participants were then asked to estimate what percentage of U.N. countries were in Africa by moving upward or downward from the random number. The median estimate for a group whose starting number was 10 was that 25 percent of U.N. countries were African; the median estimate for the group whose starting number was 65 was nearly twice that: 45 percent. (The correct answer is 28 percent.) The starting number significantly biased the estimate, even though participants knew that the number was purely arbitrary.⁴

People also estimate the likelihood of an event based on the ease with which it comes to mind, or its *availability*. For example, a clinician sees a depressed patient who says he is tired of life. Recalling other cases of depression he has seen, the clinician may remember one salient event: a depressed patient who committed

suicide. He may thus estimate the current patient's probability of committing suicide as relatively high, even though the majority of depressed patients do not attempt suicide. The relative availability of that one suicide in the doctor's memory, in other words, biases him to overestimate the likelihood of such an outcome in the present case and perhaps treat the patient accordingly.⁵

Another important heuristic is the *affect heuristic* — the tendency of people to assess probabilities based on how they feel toward particular options. According to decision researchers Paul Slovic (Decision Research, Oregon) and Ellen Peters (Univ. of Oregon), people judge an option as less risky if their feelings toward it are favorable, and they consider an option more risky if their feelings toward it are less positive. Those feelings may not correspond to real-world risks. For example, people tend to fear radiation from nuclear power plants more than they fear radiation from medical X-rays, yet it is actually X-rays that pose a greater risk to health.⁶



Valerie Reyna

Fast and Slow

Those who study how people make decisions often draw a distinction between two types of mental processing used. A fast, unconscious, often emotion-driven system that draws from personal experience is contrasted with a slower, more deliberative and analytical system that rationally balances benefits against costs among all available information. The fast, gut-level way of deciding is thought to have evolved earlier and to be the system that relies most on heuristics. It is this system that produces biases.

Univ. of Toronto psychologist Keith E. Stanovich and James Madison Univ. psychologist Richard F. West refer to these experiential and analytical modes as “System 1” and “System 2,” respectively. Both systems may be involved in making any particular choice — the second system may monitor the quality of the snap, System-1 judgment and adjust a decision accordingly.⁷ But System 1 will win out when the decider is under time pressure or when his or her System-2 processes are already taxed.

This is not to entirely disparage System-1 thinking, however. Rules of thumb are handy, after all, and for experts in high-stakes domains, it may be the quicker form of risk processing that leads to better real-world choices. In a study by Cornell University psychologist Valerie Reyna and Mayo Clinic physician Farrell J. Lloyd, expert cardiologists took less relevant information into account than younger doctors and medical students did when

Making Decisions About Health

Physicians have numerous tests at their disposal to screen for life-threatening diseases. But it's up to their patients to choose whether they want to be informed about their risk for, say, Parkinson's disease or cancer, or to avoid knowing the truth about their health.

Why do some people choose to know, and others refuse? In a study to be published in an upcoming issue of *Psychological Science*, University of Florida researchers Jennifer Lee Howell and James Shepperd proposed that people may view certain health information as a threat to their overall sense of integrity and self-worth. To test this idea, researchers set up a scenario that mimicked an annual physical. In this “physical,” they told participants about a serious, but fictitious, disease called TAA deficiency, and then asked whether the participants would like to be tested for it. Prior to the physical, some participants were primed to feel good about themselves while others were not primed. The individuals who had their self-worth boosted by the prime were more likely to agree to testing for TAA.

Additional experiments yielded similar results.

This outcome suggests that health professionals could use an affirmation-based intervention to nudge people toward choosing to know more, rather than less, about their health. Early treatment is critical for many diseases, so helping people to face potentially frightening information through self-affirmation could not only boost their sense of self-worth, it could boost their chances of survival as well.

Read more about this study on Wray Herbert's Huffington Post blog at: www.psychologicalscience.org/wray-herbert/health-screenings.

making decisions to admit or not admit patients with chest pain to the hospital. Experts also tended to process that information in an all-or-none fashion (a patient was either at risk of a heart attack or not) rather than expending time and effort dealing with shades of gray. In other words, the more expertise a doctor has, the more that his or her intuitive sense of the gist of a situation was used as a guide.⁸

In Reyna's variant of the dual-system account, *fuzzy-trace theory*, the quick-decision system focuses on the gist or overall meaning of a problem instead of rationally deliberating on facts and odds of alternative outcomes.⁹ Because it relies on the late-developing ventromedial and dorsolateral parts of the frontal lobe, this intuitive (but informed) system is the more mature of the two systems used to make decisions involving risks.

A 2004 study by Vassar biopsychologist Abigail A. Baird and Univ. of Waterloo cognitive psychologist Jonathan A. Fugelsang showed that this gist-based system matures later than do other systems. People of different ages were asked to respond quickly to easy, risk-related questions such as "Is it a good idea to set your hair on fire?"; "Is it a good idea to drink Drano?"; and "Is it a good idea to swim with sharks?" They found that young people took about a sixth of a second longer than adults to arrive at the obvious answers (it's "no" in all three cases, in case you were having trouble deciding).¹⁰ The fact that our gist-processing centers don't fully mature until the 20s in most people may help explain the poor, risky choices younger, less experienced decision makers commonly make.

Adolescents decide to drive fast, have unprotected sex, use drugs, drink, or smoke not simply on impulse but also because their young brains get bogged down in calculating odds. Youth are bombarded by warning statistics intended to set them straight, yet risks of undesirable outcomes from risky activities remain objectively small — smaller than teens may have initially estimated, even — and this may actually encourage young people to take those risks rather than avoid them. Adults, in contrast, make their choices more like expert doctors: going with their guts and making an immediate black/white judgment. They just say no to risky activities because, however objectively unlikely the risks are, there's too much at stake to warrant even considering them.¹¹

Making Better Choices

The gist of the matter is, though, that none of us, no matter how grown up our frontal lobes, make optimal decisions; if we did, the world would be a better place. So the future of decision science is to take what we've learned about heuristics, biases, and System-1 versus System-2 thinking and apply it to the problem of actually improving people's real-world choices.

One obvious approach is to get people to increase their use of System 2 to temper their emotional, snap judgments. Giving people more time to make decisions and reducing taxing demands on deliberative processing are obvious ways of bringing System 2 more into the act. Katherine L. Milkman (U. Penn.), Dolly Chugh (NYU), and Max H. Bazerman (Harvard) identify

several other ways of facilitating System-2 thinking.¹² One example is encouraging decision makers to replace their intuitions with formal analysis — taking into account data on all known variables, providing weights to variables, and quantifying the different choices. This method has been shown to significantly improve decisions in contexts like school admissions and hiring.

Having decision makers take an outsider's perspective on a decision can reduce overconfidence in their knowledge, in their odds of success, and in their time to complete tasks. Encouraging decision makers to consider the opposite of their preferred choice can reduce



Elke Weber and the Dalai Lama

judgment errors and biases, as can training them in statistical reasoning. Considering multiple options simultaneously rather than separately can optimize outcomes and increase an individual's willpower in carrying out a choice. Analogical reasoning can reduce System-1 errors by highlighting how a particular task shares underlying principles with another unrelated one, thereby helping people to see past distracting surface details to more fully understand a problem. And decision making by committee rather than individually can improve decisions in group contexts, as can making individuals more accountable for their decisions.¹³

In some domains,

Making Decisions About the Environment

APS Fellow Elke Weber recently had the opportunity to discuss her research with others who share her concern about climate change, including scientists, activists, and the Dalai Lama.

Weber, an APS Fellow and a psychological scientist from Columbia University, presented her work at the 23rd Mind Life Meeting in Dharamsala, India. The conference, titled "Ecology, Ethics and Interdependence," brought together top scholars, activists and ecological scientists to discuss environmental ethics.

In her conversation with the Dalai Lama, Weber shared her research on why people fail to act on environmental problems. According to her, both cognitive and emotional barriers prevent us from acting on environmental problems. Cognitively, for example, a person's attention is naturally focused on the present to allow for their immediate survival in dangerous surroundings. This present-focused attitude can discourage someone from taking action on long-term challenges such as climate change. Similarly, emotions such as fear can motivate people to act, but fear is more effective for responding to immediate threats.

In spite of these challenges, Weber said that there are ways to encourage people to change their behavior. Because people often fail to act when they feel powerless, it's important to share good as well as bad environmental news and to set measurable goals for the public to pursue. Also, said Weber, simply portraying reduced consumption as a gain rather than a loss in pleasure could inspire people to act.

however, a better approach may be to work with, rather than against, our tendency to make decisions based on visceral reactions. In the health arena, this may involve appealing to people's gist-based thinking. Doctors and the media bombard health consumers with numerical facts and data, yet according to Reyna, patients — like teenagers — tend initially to overestimate their risks; when they learn their risk for a particular disease is actually objectively lower than they thought, they become more complacent — for instance by forgoing screening. Instead, communicating the gist, “You’re at (some) risk, you should get screened because it detects disease early” may be a more powerful motivator to make the right decision than the raw numbers. And when statistics are presented, doing so in easy-to-grasp graphic formats rather than numerically can help patients (as well as physicians, who can be as statistically challenged as most laypeople) extract their own gists from the facts.¹⁴

Complacency is a problem when decisions involve issues that feel more remote from our daily lives — problems like global warming. The biggest obstacle to changing people's individual behavior and collectively changing environmental policy, according to Columbia University decision scientist Elke Weber, is that people just aren't scared of climate change. Being bombarded by facts and data about perils to come is not the same as having it affect us directly and immediately; in the absence of direct personal experience, our visceral decision system does not kick in to spur us to make better environmental choices such as buying more fuel-efficient vehicles.¹⁵

How should scientists and policymakers make climate change more immediate to people? Partly, it involves shifting from facts and data to experiential button-pressing. Powerful images of global warming and its effects can help. Unfortunately, according to research conducted by Yale environmental scientist Anthony A. Leisuwrowitz, the dominant images of global warming in Americans' current consciousness are of melting ice and effects on nonhuman nature, not consequences that hit closer to home; as a result, people still think of global warming as only a moderate concern.¹⁶

Reframing options in terms that connect tangibly with people's more immediate priorities, such as the social rules and norms they want to follow, is a way to encourage environmentally sound choices even in the absence of fear.¹⁷ For example, a study by Noah J. Goldstein (Univ. of Chicago), Robert B. Cialdini (Arizona State), and Vidas Griskevicius (Univ. of Minnesota) compared the effectiveness of different types of messages in getting hotel guests to reuse their towels rather than send them to the laundry. Messages framed in terms of social norms — “the majority of guests in this room reuse their towels” — were more effective than messages simply emphasizing the environmental benefits of reuse.¹⁸

Yet another approach to getting us to make the most beneficial decisions is to appeal to our natural laziness. If there is a default option, most people will accept it because it is easiest to do so — and because they may assume that the default is the best. University of Chicago economist Richard H. Thaler

suggests using policy changes to shift default choices in areas like retirement planning. Because it is expressed as normal, most people begin claiming their Social Security benefits as soon as they are eligible, in their early to mid 60s — a symbolic retirement age but not the age at which most people these days are actually retiring. Moving up the “normal” retirement age to 70 — a higher anchor — would encourage people to let their money grow longer untouched.¹⁹

A starker example of the power of defaults is provided by psychologists Eric J. Johnson (Columbia Univ.) and Daniel Goldstein (Yahoo! Research). In many European countries, individuals are automatically organ donors unless they opt not to be — organ donation is the default choice. In most of these countries, fewer than 1 percent of citizens opt out. The opposite is true in the United States. Although about 85 percent of Americans say they approve of organ donation, only 28 percent give their consent to be donors by signing a donor card. The difference means that far more people in the United States die awaiting transplants.²⁰

In a world ever more awash in choices, people become constant deciders. And the stakes of our decisions — and the consequences of errors — are growing. As Milkman, Chugh, and Bazerman put it, “Errors induced by biases in judgment lead decision makers to undersave for retirement, engage in needless conflict, marry the wrong partners, accept the wrong jobs, and wrongly invade countries.” They go on:

In a knowledge-based economy . . . a knowledge worker's primary deliverable is a good decision. In addition, more and more people are being tasked with making decisions that are likely to be biased because of the presence of too much information, time pressure, simultaneous choice, or some other constraint. [And] as the economy becomes increasingly global, each biased decision is likely to have implications for a broader swath of society.²¹

In such a world, understanding and improving decision making will decidedly become a greater and greater priority for psychological scientists of all stripes. ●

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Training Grants Encourage Integration of Clinical Science and Practice

By Bethany A. Teachman

Clinical students often report that they thrive on their work as scientists and researchers, and they also report loving their clinical work — but sometimes they view these two aspects of their training as very separate enterprises. To help address this science-practice gap, the Society for a Science of Clinical Psychology (SSCP) awarded its first annual *Clinical Scientist Training Initiative* grants in 2011.

The grants were awarded to training programs at the predoctoral, internship, or postdoctoral levels so that they could either launch new projects or support ongoing initiatives that effectively integrate science and practice in their training program.

Each of the three 2011 winners received up to \$1,500 to support their project. The winners represented a diverse group of programs in terms of training setting, type of program, geographic location, and proposed projects.

Using computers to effectively track clinical outcomes could create a wealth of information for researchers and clinicians. In their winning proposal, *Clinical Science in Practice: Creating a Sustainable Research Database*, the Department of Psychology at George Mason University (GMU) described a database they would develop to monitor clinical outcomes. The database will also serve as a research database for the GMU Center for Psychological Services, a clinic that offers evidence-based treatments to the Northern Virginia community. Robyn Mehlenbeck, lead author of the proposal and Director of the Center for Psychological Services, said, “This award has allowed us to devote graduate student time to setting up our clinical research database at our main training clinic where we employ evidence-based interventions. Each client now has a standardized packet of questionnaires to complete at intake and at discharge from care. Our next step is to get the database set up so that we can address research questions in the clinic as well as track treatment outcomes.”

New technology isn’t the only method for enhancing science in clinical training programs. The Tampa Veterans Affairs Hospital’s winning initiative, *Provision of Empirically Valid Clinical Supervision*, was unique because of its focus on improving clinical supervision. Director of Clinical Training Glenn Curtiss and his colleagues, proposed to develop and evaluate a region-wide training program for competency-based supervision of clinical psychology trainees. They proposed a “Train-the-Trainer”

model that involved hosting a full-day workshop, led by an expert in empirically based supervision, to train their entire region of psychology supervisors in scientifically grounded supervision practices. Supervision is an often neglected aspect of clinical training, and Curtiss has reported that they have already implemented the workshop with considerable success.

“The James A. Haley Veterans Hospital Psychology Training Programs presented a workshop attended by four VA hospital and three private sector training program psychologists to learn about competency-based clinical supervision from Dr. Carol Falender,” said Curtiss. “Each training program identified trainers to teach and implement this supervision model at their institution as a best-practice model.”

The final winning program, *Integrating the Evidence-Based Practice Process Into the Training of Clinical Psychologists*, came from the Department of Psychiatry and Behavioral Sciences at the Northwestern University Feinberg School of Medicine. Jason Washburn, lead author of the initiative and Director of Education and Clinical Training, noted that the program recently transitioned to an emphasis on evidence-based practice, so they requested funds to develop the infrastructure for students to



Bethany A. Teachman

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The Society for a Science of Clinical Psychology (SSCP) is eager to see new ideas in the 2012 applications for the *Clinical Scientist Training Initiative* program. Applications are due by March 31, 2012, and funds will be distributed during the summer of 2012. More information and application instructions are available at: <https://sites.google.com/site/sscpwebsite/awards>.

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PRESIDENTIAL from Page 5

may also have had the thought that undergraduates at major research universities have been studied too much (and certainly much more than members of the Menominee Nation of Wisconsin). For current purposes I'd like to suggest that we think about whether this research exchange also has any possibility of being asymmetrical.³

Do we owe our campus research participants anything beyond a sincere thanks and a short debriefing? I have in mind undergraduates taking Introduction to Psychology and serving some number of hours in a participant pool in exchange for partial course credit. At my school, we require 11 hours. (They receive an hour credit for participating in mass testing, so the main obligation is 10 hours.) We give students an hour credit for showing up to all their studies on time, so the total can be as little as 9 hours, which can turn into 18 half hours. Furthermore, we argue — correctly in my opinion — that 9 hours is more defensible than say 3 hours. Why? Because we think it is important for undergraduates taking a psychology course to learn about research and 9 hours (usually 18 half hours) will provide much more diversity of experience than 3 hours. Students may “opt out” of the participant pool by writing a 10- to 15-page paper on any psychology topic of their choice based on reading (at least) four journal articles.⁴

However, our department may be guilty of a serious inconsistency. The readings and lecture materials show up on tests and determine grades, but (at Northwestern University anyway), we don't test or grade students on what they learned by being in the participant pool. We also don't have any formal procedures for trying to assess the educational value of our debriefings (and truth be told, some of them are deliberately vague so that word doesn't spread about what the study is trying to get at and create an experiment-demand effect) or other benefits from participating in research. (One person who read a draft of this column suggested that the current situation is much more akin to mutual exploitation than mutual benefits.)

You may be sensing just a tinge of cynicism and might be wondering if I think we don't assess learning or other forms of benefits from research-pool service because these benefits do not, in fact, exist. To the contrary, one of my close friends is a cognitive psychologist, and he once told me that the primary reason he went into psychology was because when he took Introduction to Psychology, he was more or less required to be in the research pool. This experience allowed him to see that you could learn something about how the mind works by doing experiments. Being in the participant pool energized his interest in psychology. Nonetheless, the benefits from subject-pool participation appear to be essentially unassessed.

Don't you think it's odd that we pay so little attention to the benefits of research participation when our subject pool is such a lifeline for so many of us? I do. And I think we owe it to the

students. It would require effort on our part, maybe a lot of effort. I think two reasons we don't do it (if you do it at your school, please let me know) are (1) inertia and (2) the near certainty that we could be doing a better job at it.

Let's consider another nearby source of participants: infants, toddlers, and children. Typically, we rely on mothers (this is a fact, not gender bias) to bring their infants and toddlers into our college and university labs, sometimes for modest monetary compensation, but mainly because of their sheer willingness to help researchers discover how bright these children are (and they are bright — one of these days Renee Baillargeon or Liz Spelke or someone else is going to show that 6-month-old children can do differential equations). There's no need to offer course credit for participation, but the onus is on the experimenter to develop an attention-grabbing study, or the participants will either fall asleep or start crying. For developmental research, it's the parents who are being debriefed, so we have the opportunity to make them feel good about their important contributions to research. I'm guessing we do that, but does anyone know of studies that have looked either at that or other forms of benefits?

When we graduate to children, a new player comes into the picture — schools. Taking a child out of a classroom for a (short) study means taking him or her away from instruction time, including preparation time for high-stakes testing like that associated with the No Child Left Behind Act. In the past, schools often have been cooperative in principle, but it's not so easy to see what's in it for the school except for lost time and potential complaints from parents. When Sandra Waxman, Megan Bang, Karen Washinawatok, and I do studies in schools, we couple the abstract promise that our research might some day be useful in an educational context with monetary payments to schools and a promise of one hour of our RAs volunteering as teachers aides for every hour they are running studies. Those measures seem like a move in the right direction, but it's hard to escape the feeling that we're getting more than we are giving.

Maybe we should pay a bit more attention to research benefits from the perspective of those being studied. And, maybe the Menominees are not the only research “subjects” who have been studied too much. •

³ I hasten to add that the power-relation differences and potential for exploitation are minor compared with the case of Native American communities, though they may be real.

⁴ Our current excellent subject pool coordinator, Katie Meyer, says “I would say that roughly 2% [of students] choose to do the paper alternative. This includes the students who are under 18 and are required to do the paper since they cannot legally give consent for studies.”

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We're Only Human

Daily Observations *a blog by Wray Herbert*

aps *Membership*
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Love According to Harry Harlow

By Deborah Blum

Digging into the history of psychological science, the Observer has retrieved classic interviews with prominent psychological scientists for an ongoing series Psychology (Yesterday and) Today. Each interview is introduced by a contemporary psychological scientist, and the full text of the interview is available on the Observer website. We invite you to reflect on the words of these legendary scientists, and decide whether their voices still resonate with the science of today.

I first read Carol Tavris's remarkable interview with Harry Harlow (www.psychologicalscience.org/observer/harlow) while he was a guest — figuratively, of course — in my home. I was, at the time, deep into researching a book I was writing about Harlow (published in 2002 as *Love at Goon Park*). And I was at that stage of a biographical project where the subject lives with you, haunting your life like a stubborn and difficult ghost.

So I didn't merely read the interview. I was a sponge soaking it up. I couldn't put it down, and I put it down only to read it again. What I felt with each reading was the pure, sharp shock of recognition. I'm a longtime journalist and science writer, so I've learned how hard it is to bring a subject to life on the page. But Harry Frederick Harlow, one of the most influential and most controversial psychologists of the 20th century, lives and breathes in this 1973 interview, sparking with insight and intelligence, mocking, provoking, and spitting in the winds of political correctness.

Born in 1905 in Iowa, and educated at Stanford University, Harlow became famous during his time at the University of Wisconsin. He moved there in 1930 and created a primate research program — one of the first in the country — in an unwanted building with the help of scavenged supplies and student labor. He created a new theory of primate intelligence there, championing the idea that monkeys were complex thinkers and were capable of learning from experience. And he'd gone directly from that theory to challenging a powerful behaviorist argument that love and affection were not worthy of psychological study. In typical Harlow fashion, he flung down the gauntlet in a 1959 speech, which was given when he became president of the American Psychological Association. Titled "The Nature of Love," the talk accused his profession of abandoning understanding of the most fundamental emotions to poets and songwriters.

It was, also, an accusation backed by years of meticulous research. Using cloth and wire surrogate mothers, and working with baby monkeys, Harlow had painstakingly demonstrated both the importance of touch and the fundamental intensity of a bond between mother and child. That work helped affect a sea



Harry Harlow with a baby monkey and its Cloth Mother

of change in the way psychologists viewed the critical nature of relationships. Harlow continued to delve into the subject, eventually moving from nurturing aspects to destructive ones. In his later work — most done in the decade before Tavris conducted her interview — he'd looked at the influence of abusive mothers, then neglectful ones, and moved from there to the even darker question of complete social isolation. These studies in psychological destruction gradually darkened his reputation as well. He became a poster child for the emerging animal-rights movement. And his mother-focused child-rearing research attracted the ire of the women's rights movement.

Tavris's interview occurred during this later period of his career — he retired from Wisconsin in 1974 — and she began by acknowledging the tensions and seeking his response to that. And it was quite a response. Consider this exchange, in which she brings up a feminist complaint that his work feeds into the notion that women are born to be caregivers and nurturers.

Tavris: *But your own research shows that there may be nothing instinctive about the so-called maternal instinct; your female isolates were lousy mothers. They had to learn to want infants and care for them.*

Harlow: *I'll take you apart. Look, we don't deny that apes and monkeys learn. They are bright, and they learn continuously. As soon as a situation changes, or a new ability matures, learning is overlaid on innate qualities,*

Deborah Blum is a Pulitzer Prize-winning journalist and a professor of journalism at the University of Wisconsin-Madison. She is interested in how new ideas in science can change human culture, and her most recent book on the subject is *The Poisoner's Handbook: Murder and the Birth of Forensic Medicine in Jazz-Age New York*. She can be contacted at dblumbooks@gmail.com.

and it becomes difficult to tell them apart. But the innate components are there. God created two species, one named man and the other named woman. I can even tell you the difference between them. Man is the only animal capable of speaking and woman is the only animal incapable of not speaking.

Tavris: *Women's liberation will get you for that one.*

But what makes the interview so good is that Tavris herself stays so cool. Sure, she baits him a little here, but she never loses track of the real point: a wide-ranging and thoughtful discussion of his personal story, of his work with primates and its meaning in terms of understanding animals and ourselves. The conversation moves deftly, easily, from Harlow at his confrontational worst to his thoughtful best. As it concludes, the rational, ultimately decent man standing behind the work said: *In the first place I have an enormous regard for common sense. Any time we discover some great thing and it contradicts common sense, we better go back to the laboratory and check it.*

After reading the interview, I talked to Tavris as part of my own research. I wondered what she had thought about the discussion. She very kindly responded: "Sometimes Harlow was a blatantly appalling sexist, yet it was hard to know how much of it was designed to rile people up and how much was what he really thought. There was an unexpected sweetness to him that made his obnoxious remarks seem oddly artificial at the time. And she forwarded a copy of a letter he'd sent her following the *Psychology Today* publication.

He wrote: *Let me congratulate you on the splendid job you did on the interview. I'm not sure whether you were interviewing me or I was interviewing you. If I had known as much about recent developments in primate research as you do, I would have been able to respond to your questions in a more intelligent manner. I am convinced that you could raise the IQ of a vegetable — human, or otherwise.*

I was grinning when I read it. The tone was classic Harlow. And Tavris's editor wrote her a memo after seeing the letter, which I treasure to this day: It said "Total surrender. But not the letter of a small man." ●

SCIENCE from Page 11

at Harvard, Carnegie Mellon, and MIT, uses a rigorous "truth serum" methodology to elicit the first honest look at how scientists typically conduct experiments — and it finds the system flawed. Indeed, fully a third of those scientists surveyed admitted to fudging their data using some of these practices.

These are unwanted conclusions — we as scientists would like to be more rigorous — but the crucial point is that they are evidence of science policing itself. And these scientists are offering up some simple, concrete, low-cost solutions to the broad problem. They would, for example, require scientists to stick with their original plans for data collection and to list all variables and conditions, even when they fail to yield significant results. Others have proposed public online data repositories (<http://www.psychologicalscience.org/spellman-manuscript>), which would make all data transparent, including failed replications. In fact, we are now considering these solutions for our journals.

The scientists who conducted these two time-consuming studies of scientific methodology took time away from their own research projects because they felt it was important to put laboratory science itself under the lens—with hopes of improving its integrity and value. That value, ultimately, is psychological science's payoff for the public. Psychological scientists do not work in isolation from the broader culture, squirreled away in a lab, asking arcane questions. They seek to better understand

human motivation, emotions, self-control, interactions of genes and environment, judgment and decision making — so that we might lead happier, healthier, more productive lives.

Illuminating these building blocks of human behavior affects everything from public health and disease prevention to financial choices, energy conservation, and even political and moral judgments. As a result of behavioral-science research, we now know better ways to teach our kids mathematics and reading; clearer ways for physicians to explain health risks to the typical patient; and simple ways to motivate young adults to save for the future.

And if we want a fuller understanding of how the brain works in order to better address Alzheimer's, schizophrenia, post-traumatic stress disorder and other serious mental afflictions, we're going to need an equally full understanding of the basics behind thinking, learning, remembering and other behavioral-science issues that are brain-related.

The above-mentioned studies of laboratory ethics, and proposals for change, are already being widely discussed in the field. They will most likely lead to self-examination, and then to improvements in the conduct of research — and ultimately to more truthful and helpful answers to the riddles of behavior. Notably, they will not catch the Diederik Stapels of the world red-handed. Those rare cases of blatant immorality must be rooted out and publicly exposed — as this case was, by vigilance within the field. ●



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Keynote Address



James S. Jackson
University of Michigan, Ann Arbor

Jackson's research focuses on how culture influences our health during our lives, attitude changes, and social support. He has contributed enormously to our understanding of such diverse perspectives as race relations and racism around the world. For example, his research has highlighted how racial discrimination can affect physical and mental health and treatment. Jackson is a member of the Institute of Medicine of the US National Academies, a Fellow of the American Academy of Arts and Sciences, and a founding member of the Aging Society Research Network of the MacArthur Foundation. He is a recipient of the Association for Psychological Science (APS) James McKeen Cattell Fellow Award for his lifetime of significant intellectual achievements in applied psychological research.

Bring the Family Address



Barry Schwartz
Swarthmore College

"America is broken," says Barry Schwartz. "None of the institutions we rely on -- schools, clinics, courts, banks -- give us what we want and need. Our efforts to repair these institutions rely on two tools -- rules and incentives. Neither can do the job. What is also needed is virtue and character and especially the virtue that Aristotle called 'practical wisdom,' the will to do the right thing and the skill to figure out what the right thing is. Psychological research tells us that whereas people aren't born wise, they are born to become wise, if they have the right experience. And rules and incentives provide the wrong experience. Too many rules undermine the development of skill and too much reliance on incentives undermines the needed will. Current institutional practices threaten wisdom. Efforts can and should be made to nurture it instead."

Psi Chi Distinguished Speaker



Is Music Training Predictive of Cognitive Social and Emotional Abilities?

E. Glenn Schellenberg
University of Toronto, Mississauga, Canada

APS-David Myers Distinguished Lecture on the Science and Craft of Teaching Psychology



Debunking Pseudoneuroscience

Carol Tavris
Social Psychologist and Writer



Margaret Beale Spencer
University of Chicago

Interviewed by

Douglas L. Medin
Northwestern University



APS William K. Estes Lecture



Richard M. Shiffrin
Indiana University

Introduced by



Robert A. Bjork
University of California, Los Angeles



Brenda Milner
McGill University, Canada

Interviewed by

Carol Tavris
Social Psychologist and Writer



Presidential Symposium



Douglas L. Medin, Chair
Northwestern University

Diverse Perspectives: Who Owns Science?

In this symposium four scholars analyze diversity in science and explore the ways in which the nature of science may depend on who is doing it.



Margaret Beale Spencer
University of Chicago

Advancing Grounded Portrayals of Human Development for Diverse Communities: The Advantages of Systems Theory and Mixed-method Approaches for Challenging Stagnant Science

A professor of Urban Education, Spencer studies resiliency, identity, and competence formation processes for African-American, Hispanic, Asian-American, and Euro-American youth. She designed a CNN study to test racial bias in children and was awarded the 2006 Fletcher Fellowship, which recognized work that furthers the broad social goals of the U.S. Supreme Court's *Brown v. Board of Education* decision.



Helen E. Longino
Stanford University

Science, Diversity, and Objectivity

Longino's teaching and research interests are in philosophy of science, philosophy of biology, social epistemology, and feminist philosophy. She has argued influentially for the significance of values and social interactions in the practices of science. Longino is well known for her books *Science as Social Knowledge* and *The Fate of Knowledge*.



Richard A. Shweder
University of Chicago

Fundamentalism in Mainstream Psychology versus Other Big Currents: Cultural Psychology

A professor of Human Development, Shweder is a cultural anthropologist whose research interests include psychological anthropology and cultural psychology. Over the past 40 years, he has conducted research in the Hindu temple town of Bhubaneswar, India. He is a Fellow of the American Academy of Arts and Sciences and a recipient of a John Simon Guggenheim Fellowship and the American Association for the Advancement of Science Socio-Psychological Prize.



Megan Bang
University of Washington

Bang's work is broadly focused on issues of culture, cognition and development. More specifically she focuses on community-based and culturally based science education. Her academic work has explored the kinds and forms of explanations, arguments, and attentional habits Native American children are exposed to and learn in community settings as they relate to school science learning.

Award Addresses

William James Fellows



Elaine Hatfield
University of Hawaii, Manoa
Introduced by co-recipient

Ellen Berscheid
University of Minnesota



Henry L. "Roddy" Roediger, III
Washington University in St. Louis

James McKeen Cattell Fellows



David H. Barlow
Boston University



Geraldine Dawson
University of North Carolina at Chapel Hill

SSCP Distinguished Scientist Award Address



Are We Overmedicating America's Children? Psychosocial, Pharmacological, Combined, and Sequenced Interventions for ADHD

William E. Pelham
Florida International University



Gail Goodman
University of California, Davis

SPECIAL EVENTS

Clinical Science Forum

Organizational Efforts to Disseminate and Implement Empirically-Supported Interventions in Health Care Systems



Chair: Lea R. Dougherty

University of Maryland, College Park

Kellie Crowe, *Wilford Hall Ambulatory Surgical Center, Lackland Air Force Base*

Antonette Zeiss, *Department of Veterans Affairs*

Afsoon Eftekhari, *National Center for PTSD, Dissemination and Training Division*

Patricia Resick, *National Center for PTSD, VA Boston Healthcare System, Boston University*

Shirley M. Glynn, *VA Office of Mental Health Services*

Bradley E. Karlin, *Office of Mental Health Services (116), VA Central Office*

This symposium will provide an overview of large-scale organizational efforts to increase the use of empirically-supported treatments in health care systems. Speakers will describe the implementation and dissemination of empirically-supported interventions within the Air Force (AF) and Veterans Affairs (VA) health care systems. Within these contexts, the following training and dissemination efforts will be discussed for the following treatments: prolonged exposure (PE) therapy, cognitive processing therapy for Post Traumatic Stress Disorder (PTSD), cognitive behavioral therapy (CBT) and acceptance and commitment therapy (ACT) for depression, and behavioral couples and family therapy.

SSCP Presidential Address



Richard G. Heimberg

Temple University

Psychological Science in the Public Interest



Chair: Elaine F. Walker

Emory University

Online Dating: A Critical Analysis From the Perspective of Psychological Science

Eli J. Finkel, *Northwestern University*

Psychopathic Personality: Bridging the Gap Between Scientific Evidence and Public Policy

Scott O. Lilienfeld, *Emory University*

2012 PROGRAM COMMITTEE

Daniel Cervone (Chair), *University of Illinois at Chicago (General)*

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Abigail Baird, *Vassar College (Developmental)*

Howard Berenbaum, *University of Illinois at Urbana-Champaign (Clinical)*

C. Shawn Burke, *University of Central Florida (Industrial/Organizational)*

Howard N. Garb, *San Antonio Military Medical Center, Lackland AFB (Clinical)*

Ellen Hamaker, *Universiteit Utrecht, The Netherlands (Methodology)*

Jeffrey Holmes, *Ithaca College (Teaching Institute)*

Michael Inzlicht, *University of Toronto, Scarborough, Canada (Social)*

Richard S. Lewis, *Pomona College (Biological/Neuroscience)*

Arnaud Rey, *CNRS - Université de Provence, France (Cognitive)*

Tracy E. Zinn, *James Madison University (Teaching Institute)*

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Questions? +1 202.293.9300 or convention@psychologicalscience.org



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Room Rates

APS has negotiated special convention rates at the Sheraton Chicago Hotel & Towers. The room rates at the hotel for guests attending the convention are:

Single Occupancy: \$179.00+tax
Double Occupancy: \$179.00+tax
Triple Occupancy: \$199.00+tax
Quadruple Occupancy: \$219.00+tax

Reservations

Reservations can be made online through the APS Convention website www.psychologicalscience.org/convention/hotel or by calling +1 312.464.1000 and requesting the Association for Psychological Science special rate.

Hotel Information

Check in at the Sheraton Chicago Hotel & Towers is 3:00 PM, check out is 12:00 PM. On-site parking is available at the Sheraton Chicago Hotel & Towers. Valet parking is \$49 per night and includes in and out privileges. Self parking is available for \$37 per night. Rates are subject to change without notice.

A deposit equal to one night's stay is required to hold each individual's reservation. Personal check, money order or a valid American Express, Visa, Master Card, Diners Card or Carte Blanche card number and expiration date or a guarantee to the master account are acceptable.

Cancellations will be accepted at no charge up to 48 hours prior to arrival, local hotel time. Deposits will be refunded if cancelled up to 48 hours prior to the day of arrival, local hotel time.

Amenities

The Sheraton Chicago Hotel & Towers is conveniently located in the heart of downtown Chicago. Overlooking the Chicago River, the hotel puts you within walking distance of the Navy Pier, Magnificent Mile, Millennium Park, Art Institute, the Loop District, shopping, dining and entertainment.

Hotel amenities at the Sheraton Chicago Hotel & Towers include wireless high-speed Internet access, five restaurants and lounges and a fully equipped health club with cardiovascular and weight-training machines. Additional amenities include saunas, an indoor pool and massage therapies.

ADA Accessibility/Accommodations

APS is committed to ensuring that our convention is fully accessible to all persons. If you have a specific accessibility or dietary requirement, please contact Kelsey Thomas at +1 202.293.9300 and every attempt will be made to accommodate your request.

CROSS-CUTTING THEME PROGRAMS

Biological Beings in Social Context



Joan Y. Chiao
Northwestern University



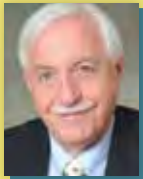
Elissa Epel
University of California, San Francisco



Christine Dunkel Schetter
University of California, Los Angeles



Annette Karmiloff-Smith
Birkbeck College, United Kingdom



Richard Lerner, Discussant
Tufts University

Nature “versus” nurture? Not anymore! In today’s psychological science, they’re on the same team. Research reveals the interdependencies among biological systems and social contexts. Environmental and interpersonal factors influence the expression of genes, the development of the brain, and the growth of the individual from the beginnings of life. In this theme program, speakers present cutting-edge advances in the study of biological beings in social context.

Disaster, Response, and Recovery



George A. Bonanno
Columbia University



Silvia H. Koller
Rio Grande do Sul Federal University, Brazil



Edna B. Foa
University of Pennsylvania



Dirk Helbing
Swiss Federal Institute of Technology, Zurich



Lisa M. Shin
Tufts University

Disasters – natural (floods, earthquakes, landslides) or human-induced (war, terrorism, crowding disasters) – present psychological science with multiple challenges: identifying the psychological and biological effects of trauma; helping the traumatized victims; and formulating interventions that might prevent disasters from occurring. In this theme program, international leaders in the study of disaster, response, and recovery show how these challenges can be, and have been, met.

CALL FOR SUBMISSIONS

THEME POSTER SESSIONS

2012 Theme Programs

- *Biological Beings in Social Context*
- *Disaster, Response, and Recovery*
- *Music, Mind, and Brain*

www.psychologicalscience.org/convention/call-for-submissions

If your poster presents research relevant to one of the Theme Programs, you can submit to a special Theme Poster Session. Submit proposals online through January 31, 2012.

CROSS-CUTTING THEME PROGRAMS

Music, Mind, and Brain



Daniel J. Levitin
McGill University, Canada



Aniruddh D. Patel
The Neurosciences Institute



Carol L. Krumhansl
Cornell University



Victor Wooten, Discussant
*Five-Time Grammy Award Winner and Bassist for
Béla Fleck & The Flecktones*

It's just sound -- structured, organized sound. Yet it has surrounded us, moved us, and echoed in our memories throughout the history of our species. In this theme program, three of the world's leading psychologists and neuroscientists in the study of music, and one of the world's leading musicians, discuss the psychological systems and "orchestra of brain regions" through which music enriches our lives.

Including a special concert with



Dale Boyle
*Award-winning Folk,
Country, and Blues
Singer-songwriter*



Kevin Feyen
*Worth Publishers and
Former Member of
the Black Eyed Peas*



Robert W. Levenson
*University of California,
Berkeley and APS Past
President*

and featuring



Daniel J. Levitin
McGill University, Canada



Bianca Levy
McGill University, Canada



Victor Wooten
*Five-Time Grammy Award Winner
and Bassist for Béla Fleck & The
Flecktones*

WORKSHOPS

Integrative Data Analysis: Applications Across Different Data Types

Integrative data analysis (IDA) is a general term for a set of analytic techniques derived from combining or linking independent data sets together and analyzing them as a complete set. This is different from meta-analysis in the sense that one analyzes the actual data in IDA, not the statistical summaries of those data. IDA is a cost-effective way to do science and has the potential to move areas of science forward rapidly by building a cumulative knowledge base. It is an extremely topical issue given the unprecedented access to data that is now afforded to all researchers through cyberinfrastructure (i.e., internet-based research environments), and a push from the Federal government to make data more accessible.

This four-hour workshop will provide a general overview of the pertinent issues involved with IDA, demonstrate three applied guided examples utilizing different types of data, and discuss Federal funding opportunities to support IDA methodology. Statistical code and related output will be provided to workshop participants so that they can follow along with each example.

Workshop Objectives:

- 1) Learn about the conceptual and analytic issues involved with integrative data analysis
- 2) Observe applied guided examples of the types of integrative data analyses that can be done
- 3) Apply techniques learned to a prescribed dataset during a workshop



Richard P. Moser

National Cancer Institute



Patrick J. Curran

University of North Carolina at Chapel Hill



Michael Larsen

The George Washington University



Daniel Bauer

University of North Carolina at Chapel Hill



Sierra Bainter

University of North Carolina at Chapel Hill

Integrating Qualitative and Quantitative Methods: Mixed Methods Designs for Psychological Research



Rebecca Campbell

Michigan State University

Mixed methods research designs are often celebrated as having the best of both worlds—quantitative numerical findings as well as qualitative contextual detail. However, planning, implementing, analyzing, and presenting mixed methods projects can be challenging. This workshop will break down this complex process into a series of decision trees researchers can use to create mixed methods studies. This workshop will provide an overview of the key epistemological and methodological debates in the mixed methods literatures. Then, we will focus on specific mixed methods designs and their utility across different types of psychological research. Participants will work on developing a feasible mixed methods design for a research topic in their own substantive areas.



Gregory R. Hancock

University of Maryland

Structural equation modeling represents the union of regression, path analysis, and factor analysis, facilitating the investigation of hypothesized relations among both measured and latent variables. The particular advantage of methods involving latent variables is that theories may be investigated as they pertain directly to the underlying constructs of interest, rather than to the measured variables whose observed relations are often attenuated by error of measurement. The current workshop will provide a brief practical introduction to this exciting area, starting with path analysis among measured variables, moving into confirmatory factor models, and then finally detailing structural models involving hypothesized causal connections among latent variables. Issues related to advanced types of models, as well as software options, will be mentioned as well. Participants are encouraged to bring PC-compatible laptop computers to be able to do practice exercises using the SIMPLIS language within the LISREL software package; registrants will be e-mailed information about software and materials to download prior to the workshop.

WORKSHOPS

Introduction to Multilevel Modeling



Elizabeth Page-Gould

University of Toronto, Scarborough, Canada

Multilevel modeling is an analysis known by many names: Hierarchical Linear Modeling (HLM), nested growth curves, and random effects models, just to name the most common monikers. Truly, multilevel models represent a class of techniques used to analyze datasets where cases are not independent (e.g., romantic couples, primates within colonies, longitudinal designs). This workshop will give you a practical introduction to the theory, implementation, interpretation, and reporting of multilevel models. Page-Gould will demonstrate some important extensions that are commonly employed by psychologists: simple effects testing, mediation, and calculation of effect size in multilevel models. You will also receive syntax files for conducting multilevel modeling in two common statistical packages: SPSS and R (you only need to be familiar with one of these packages). You will emerge from the workshop with the ability to apply multilevel modeling to your research questions in a rigorous manner.

Estimation for Better Research: Effect Sizes, Confidence Intervals, and Meta-analysis



Geoff Cumming

La Trobe University, Australia

The *APA Publication Manual* states “wherever possible, base discussion and interpretation of results on point and interval estimates.” This workshop will explain why an estimation approach is better than null hypothesis significance testing, and describe how to calculate and interpret effect sizes and confidence intervals for a range of measures and designs. It will also introduce meta-analysis, and the use of precision for research planning. The emphasis will be on understanding, and practical strategies. Much use will be made of the interactive simulations of ESCI (Exploratory Software for Confidence Intervals). There is more information about ESCI, and the book that includes the material in the workshop, at: www.thenewstatistics.com

Introduction to R Statistical System



William Revelle

Northwestern University

R is an integrated suite of software facilities for data manipulation, calculation, and graphical display that is particularly useful for psychological scientists. This workshop will assume no prior knowledge of R and will emphasize standard functions for analysis and display of experimental and correlational data for classroom and research.

Studying Emotions in the Laboratory



Iris Mauss

University of Denver

This workshop will provide a brief and practical introduction to studying emotion in the laboratory. Studying emotion in the lab requires two things. First, one needs to be able to evoke emotions in laboratory settings. We will cover various approaches to doing so, including pictures, film clips, and naturalistic interactions, with a focus on advantages and disadvantages of each one. Second, one needs to be able to measure participants' emotional responses. We will cover three common approaches to measuring emotion: experience, facial behavior, autonomic physiology. Discussion will focus on advantages and disadvantages of each one as well as their relationship to one another. Participants should emerge from the workshop with the ability to design rigorous laboratory studies involving emotion.

Randomization Tests for Single-case Experiments Using R



Patrick Onghena

Katholieke Universiteit Leuven, Belgium

In this workshop, participants will be introduced to the SCRT-R (Single Case Randomization Tests, the R version) package. Some theoretical background regarding randomization tests will be provided, together with exercises and hands-on experience using the package. Participants will be shown how to perform a visual analysis (making a graphical representation of the single-case data; plotting a measure of central tendency; displaying information about variability in the data; and visualizing trends), how to calculate randomization test p-values, how to include effect size measures in their analyses (Standardized Mean Difference, Percentage of Nonoverlapping Data, and Percentage of Data points Exceeding the Median), and how to perform a meta-analysis of replicated single-case experiments. The focus of this workshop will be on behavioral applications and on understanding the results of statistical analyses rather than on the mathematical or algorithmic background of the techniques presented.

INVITED ADDRESSES



**Sex, Murder, and the
Meaning of Life**

Douglas T. Kenrick
Arizona State University



**Breaking Down Empathy
into Component Processes:
Integrating Evolution,
Neurobiology and
Psychology**

Jean Decety
University of Chicago



**Science and Practice in
2012 And Beyond**

David H. Barlow
Boston University



**Culture as Treatment
for American Indian
Mental Health Problems:
Pursuing Evidence Through
Community Collaborations**

Joseph P. Gone
University of Michigan, Ann Arbor



**The Interpretation of
Dreams, and of Jokes**

Matthew H. Erdelyi
*Brooklyn College, The City
University of New York*



**Language, Culture, and
Being Human**

Daniel Everett
Bentley University



Race to Nowhere

Vicki H. Abeles
Producer and Co-Director



**How Applied Behavior Analysis
is Making a Difference:
A Look at Effective Early
Intervention Treatment for
Children with Autism**

Sheila Jodlowski
Manhattanville College



**What Develops in Social
Development?**

Eric E. Nelson
National Institute of Mental Health



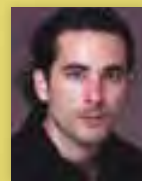
**The New Statistics: Why,
How and Where Next**

Geoff Cumming
La Trobe University, Australia



Oliver P. John

University of California, Berkeley



**Why Agreeable People
Are Agreeable: Cognitive,
Regulation, and Metaphoric
Perspectives**

Michael Robinson
North Dakota State University



**Safely Testing the Alarm:
Positive Event Disclosures
and Traditional Social
Support**

Shelly Gable
*University of California,
Santa Barbara*



**The Righteous Mind: How
Moral Psychology Can
Explain Part of the Political
Mess We're In**

Jonathan Haidt
University of Virginia



**Understanding the
Decline Effect Requires
Systematically Documenting
Unpublished Findings**

Jonathan W. Schooler
*University of California, Santa
Barbara*

INVITED TALKS



**Academic Performance
Under Stress**

Sian Beilock
University of Chicago



**Facing Our Selves: What
People Do and Don't Know
About Their Personality**

Simine Vazire
Washington University in St. Louis



**Resources for Emotion
Regulation**

Heather L. Urry
Tufts University

INVITED SYMPOSIA

Evolutionary Psychology: Controversies, and Current Directions



Chair: Richard S. Lewis

Pomona College

Jaime Cloud, *University of Texas at Austin* and

David Buss, *University of Texas at Austin*

The Use and Misuse of Evolutionary Psychology

Debra Lieberman, *University of Miami*

It's All Relative: Human Kin Detection and Inbreeding Avoidance

Ed Hagen, *Washington State University, Vancouver*

Nicotine—Candy or Cure? Testing an Evolutionary Alternative to the Reward Model of Psychoactive Substance Use

Martie Haselton, *University of California, Los Angeles*

Fertile Minds: Effects of the Ovulatory Cycle on Women's and Men's Social Behavior

Discussant: **David Buss**, *University of Texas at Austin*

Current Directions in ADHD Research



Chair: Arnaud Rey

CNRS- Universite de Provence, France

Chair: Howard Berenbaum

University of Illinois at Urbana-Champaign

Richard Milich, *University of Kentucky*

Inference-making Difficulties Among Children with ADHD



Tiago V. Maia, *Columbia University*
Norepinephrine and ADHD

Cynthia Huang-Pollock, *Pennsylvania State University*

Integrating Common Cognitive Phenomena in ADHD

Rick Mayes, *University of Richmond*

Medicating Kids: ADHD and the Controversy over Stimulants

Looking at the Impact of Culture in Collectives



Chair: C. Shawn Burke

University of Central Florida

Debbie DiazGranados, *Virginia Commonwealth University*

Maritza Salazar, *Claremont University*
Facilitating Creativity in Inter-Cultural Teams:

The Role of Dual Identification

Paul Hanges, *University of Maryland*

Diverse Perspectives on Diversity in Mentoring



Chair: Suzanne T. Bell

DePaul University

Lisa Finkelstein, *Northern Illinois University*

Roya Ayman, *Illinois Institute of Technology*

Belle Rose Ragins, *University of Wisconsin – Milwaukee*

Gene-environment Interactions of Psychological Traits



Chair: Howard Berenbaum

University of Illinois at Urbana-Champaign

Elizabeth Hayden, *University of Western Ontario, Canada*
Genetic and Contextual Interplay in Emerging Child Depression Risk

Danielle M. Dick, *Virginia Institute for Psychiatric and Behavioral Genetics*

The Promise and Peril of GxE Studies

S. Alexandra Burt, *Michigan State University*

Are GxE Really Ubiquitous? Thinking Though Our Implicit Assumptions

Emotional Influences on Decision Making



Chair: Benjamin J. Newell

University of New South Wales, Australia

Peter Ayton, *City University London, United Kingdom*
Dread Risk: Terrorism & Bicycle Accidents

Paul Slovic, *University of Oregon*
The More Who Die, the Less We Care: Psychic Numbing and Genocide

John Payne, *Duke University*

Complex Risky Choice and Emotions

Application of Diverse Methodologies to Studying Distributed Teams



Chair: C. Shawn Burke

University of Central Florida

Leslie DeChurch, *Georgia Technical University*
Innovating within and Across Teams, through Time and Space: A Multiteam-network Perspective

Aparna Joshi, *University of Illinois*

Leading Across Distance and Time: Leadership in Globally Distributed Teams

Strategies for Developing a Successful Research Proposal: Perspectives Across Funding Agencies



Chair: C. Shawn Burke

University of Central Florida

Jay Goodwin, *Army Research Institute*

Susan Winter, *National Science Foundation*

Sarah Kobrin, *National Institute of Health*

INVITED SYMPOSIA

Making Intensive Longitudinal Data Speak



Chair: Francis Tuerlinckx

Katholieke Universiteit Leuven, Belgium

Chair: Peter Kuppens

Katholieke Universiteit Leuven, Belgium

Jean-Philippe Laurenceau, *University of Delaware*

Pamela Sadler, *Wilfrid Laurier University, Canada*

Emilio Ferrer, *University of California, Davis*



Beyond Threat and Defense in the Science of Meaning



Chair: Laura A. King

University of Missouri, Columbia

Mark Landau, *University of Kansas*

More Than Words: Metaphorical Thought in Social Life

Sascha Topolinski, *Universität Würzburg, Germany*
Measuring and Inducing Gut Feelings in

Intuitive Judgments

Laura Kray, *University of California, Berkeley*

From What Might Have Been to What Must Have Been:
Counterfactual Thinking Creates Meaning

New Directions in the Psychology of Meaning



Chair: Travis Proulx

Tilburg University, The Netherlands

Roy F. Baumeister, *Florida State University*

Aaron Kay, *University of Waterloo, Canada*

Ian McGregor, *York University, Canada*

Advances and Applications in Single Case Design



Chair: Ellen L. Hamaker

Utrecht University, The Netherlands

Chair: Howard N. Garb

Wilford Hall Medical Center, Lackland AFB

Patrick Onghena, *Katholieke Universiteit Leuven, Belgium*

The Curious Case of Single-case Research:
Causal Inference from Randomized Single-case Experiments

Matthew K. Nock, *Harvard University*

Doing More with Less: (Re)focusing Psychology on the Study of Change within Individuals



Thomas Kratochwill, *Wisconsin Center for Education Research*

Distinguishing Design and Evidence: The What Works Clearinghouse Single-Case Research Standards

Discussant: **David H. Barlow**, *Boston University*

Political Ideology "From the Bottom Up": Origins, Manifestations, Consequences



Chair: John T. Jost

New York University

Geraint Rees, *University College, London, United Kingdom*

Political Attitudes and Brain Structure

Christian Kandler, *Universität Bielefeld, Germany*

Genetic and Environmental Sources of Left-Right Political Orientation: The Roles of Personality, Assortative Mating, and Generation-Specific Context Effects

Christopher M. Federico, *University of Minnesota*

Ideological Asymmetries in the Political Expression of Needs for Certainty and Order

Riley E. Dunlap, *Oklahoma State University*

Political Ideology and Global Warming: The Dismissal of Climate Change by Conservative Americans

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STUDENT EVENTS

Naked Truth Series

Part I – Getting into Graduate School

This panel provides a step-by-step guide for students interested in pursuing a graduate degree. Graduate students from various fields of psychological science will share their experiences and offer advice the process of graduate school admissions. The wide-ranging discussion will include advice for preparing for graduate school, what to expect during the application process, and tips for surviving graduate school interviews.

Chair: Kris Gunawan, *University of Nevada, Las Vegas*

Part II – Surviving Graduate School

Do you have questions about the next steps in your psychology education? This students-only event consists of three separate one-hour panels that focus on getting into graduate school, surviving graduate school, and what to do after graduate school, respectively. Each panel features students (or recent graduates) who share their experiences and answer questions from the audience.

Chair: Sean Hughes, *National University of Ireland Maynooth*

Part III- Navigating the Academic Job Market in Tough Economic Times

Are you a graduate student or recent graduate about to look for that first post-graduation position? Do you have questions about navigating the job market in a difficult economy? This panel will bring together a group of psychological scientists including faculty members and post-docs to share their experiences and answer your questions about finding a job in research, teaching, clinical science or non-traditional placements.

Chair: Peter M. Vernig, *Suffolk University*

How to Get Published

Are you a beginner in the world of scientific publishing? Editors from top journals in the field of psychological science will give valuable advice about what happens once your paper has been submitted, the publication process (e.g., common pitfalls of first-time submitters, what editors look for in manuscripts, why editors and reviewers only accept certain statistical procedures, etc.) and answer questions from the audience. This event is geared toward students and beginning researchers who want to find out what happens once they hit “submit.”

Chair: Nicholas R. Eaton, *University of Minnesota*

RISE Research Award Symposium

The RISE Research Award is given annually to recognize outstanding student research on socially and economically under-represented populations. The winners, selected by a panel of their peers, will present their research in symposium format. The goal of this event is to increase awareness of the need for diverse perspectives in psychological science.

Chair: Andrew S. Sage, *University of Missouri, Columbia*

Student Research Award Symposium

The Student Research Award is given annually to recognize outstanding research conducted by APS Student Affiliates. The program will feature addresses from the four winners of the 2011 competition, who were selected through peer-review process.

Chair: Sean Hughes, *National University of Ireland Maynooth*

Champions of Psychology

The APS Student Caucus is honored to present the annual Champions of Psychology event, which provides the unique opportunity for student affiliates to talk in an informal setting with some of the most respected and well-known scientists in psychology. Space is limited, and available only on a first-come, first-seated basis, so come early to get a good seat.

Chair: Peter M. Vernig, *Suffolk University*

19TH ANNUAL APS-STP TEACHING INSTITUTE

Workshop



Sharpen Your Saw: Technology for Educators

Sue Frantz

Highline Community College

The fast pace of technological change has left many of us feeling behind. Our day-to-day work leaves us feeling too busy to seek out tech tools that may help us be more efficient. What are the newest technologies that you can use right now?

Distinguished Lecturer



Personality Theories for Science . . . and Literature

Robert R. McCrae

National Institute on Aging

Research on the Five-Factor Model shows classic personality theories are outdated; new theories should be taught. Psychoanalysis remains influential in the humanities, but Five-Factor Theory provides a more scientific basis for interpreting characters in fiction. Some discussion of literature can keep "Personality Theories" relevant to a wide range of students.

Concurrent Sessions

Teaching within an Honor System: Impact on Pedagogy and Practical Advice



Beth M. Schwartz

Randolph College



Holly Tatum

Randolph College

Texting = Epic Fail: Empirical Evidence that Text Messaging During Class Disrupts Comprehension of Lecture Material



Amanda C. Gingerich

Butler University



Tara T. Lineweaver

Butler University

Transformation and Service-Learning in Psychology



Steven Meyers

Roosevelt University

Students Appreciate Unannounced Quizzes After Exposure To Them In Class



Margaret C. Stevenson

University of Evansville

Retrieve Before You Leave: End-of-Lecture Retrieval Practice Increases Statistics Exam Performance



Keith B. Lyle

University of Louisville

Loving Your Students Without Being a Pushover



Janie H. Wilson

Georgia Southern University

Women, Romance, and STEM: Predicting Interest in Science, Technology, Engineering, and Math



Lora E. Park

University at Buffalo, The State University of New York

Opening Plenary



Increasing Student Success: What Can Instructors Do?

Meera Komaraju

Southern Illinois University

How do students' personality traits, learning strategies, self-efficacy, social integration, and perceived interactions with faculty relate to their motivation and performance? Is it possible for instructors to structure their curriculum and the classroom experience to increase students' performance? Drawing on my research findings, I offer some answers to these questions.

Closing Plenary



Utility Value Research: Useful Tips for Undergraduate Teaching

Janet Hyde

University of Wisconsin, Madison

"Utility value" refers to the usefulness of a task to the individual, either now or in the future. Both laboratory experiments and classroom research show that, when students perceive material as useful, they become more interested and achieve more (Hulleman & Harackiewicz). This talk will describe this research on utility value and explore its application for teaching undergraduate courses including introductory psychology and statistics.

Society for the Teaching of Psychology Programs



Teaching Intergroup Relations in the 21st Century: Pleasures, Pains, and Prerogatives

Gordon Hodson

Brock University, Canada



Putting the Person Back Together: The Social Psychology of Cultural Animals

Roy Baumeister

Florida State University



David Daniel

James Madison University

INVITED SPEAKERS

Vicki H. Abeles
 Roya Ayman
 Peter Ayton
 Sierra Bainter
 Megan Bang
 David H. Barlow
 Daniel Bauer
 Roy F. Baumeister
 Margaret Beale Spencer
 Sian Beilock
 Suzanne T. Bell
 Howard Berenbaum
 Ellen Berscheid
 Robert A. Bjork
 George A. Bonanno
 Dale Boyle
 C. Shawn Burke
 S. Alexandra Burt
 David Buss
 Rebecca Campbell
 Joan Y. Chiao
 Jaime Cloud
 Kellie Crowe
 Geoff Cumming
 Patrick J. Curran
 David Daniel
 Geraldine Dawson
 Jean Decety
 Leslie DeChurch
 Debbie DiazGranados
 Danielle M. Dick
 Lea R. Dougherty
 Christine Dunkel Schetter
 Riley E. Dunlap
 Afsoon Eftekhari
 Elissa Epel

Matthew H. Erdelyi
 Daniel Everett
 Christopher M. Federico
 Emilio Ferrer
 Kevin Feyen
 Eli J. Finkel
 Lisa Finkelstein
 Edna B. Foa
 Sue Frantz
 Shelly Gable
 Howard N. Garb
 Amanda C. Gingerich
 Shirley M. Glynn
 Joseph P. Gone
 Gail Goodman
 Jay Goodwin
 Ed Hagen
 Jonathan Haidt
 Ellen L. Hamaker
 Gregory R. Hancock
 Paul Hanges
 Martie Haselton
 Elaine Hatfield
 Elizabeth Hayden
 Richard G. Heimberg
 Dirk Helbing
 Gordon Hodson
 Cynthia Huang-Pollock
 Janet Hyde
 James S. Jackson
 Sheila Jodlowski
 Oliver P. John
 Aparna Joshi
 John T. Jost
 Christian Kandler
 Bradley E. Karlin
 Annette Karmiloff-Smith

Aaron Kay
 Douglas Kenrick
 Laura A. King
 Sarah Kobrin
 Silvia H. Koller
 Meera Komarraju
 Thomas Kratochwill
 Laura Kray
 Carol L. Krumhansl
 Peter Kuppens
 Mark Landau
 Michael Larsen
 Jean-Philippe Laurenceau
 Richard Lerner
 Robert W. Levenson
 Daniel Levitin
 Bianca Levy
 Richard S. Lewis
 Debra Lieberman
 Scott O. Lilienfeld
 Tara T. Lineweaver
 Helen E. Longino
 Keith B. Lyle
 Tiago V. Maia
 Iris Mauss
 Rick Mayes
 Robert R. McCrae
 Ian McGregor
 Douglas L. Medin
 Steven Meyers
 Richard Milich
 Brenda Milner
 Richard P. Moser
 Eric E. Nelson
 Benjamin J. Newell
 Matthew K. Nock

Patrick Onghena
 Elizabeth Page-Gould
 Lora E. Park
 Aniruddh D. Patel
 John Payne
 William E. Pelham
 Travis Proulx
 Geraint Rees
 Patricia Resick
 William Revelle
 Arnaud Rey
 Michael Robinson
 Henry L. "Roddy" Roediger, III
 Belle Rose Ragins
 Pamela Sadler
 Maritza Salazar
 E. Glenn Schellenberg
 Jonathan W. Schooler
 Barry Schwartz
 Beth M. Schwartz
 Richard M. Shiffrin
 Lisa M. Shin
 Richard A. Shweder
 Paul Slovic
 Margaret C. Stevenson
 Holly Tatum
 Carol Tavis
 Sascha Topolinski
 Francis Tuerlinckx
 Heather L. Urry
 Simine Vazire
 Elaine F. Walker
 Janie H. Wilson
 Susan Winter
 Victor Wooten
 Antonette Zeiss

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Wrigley Field



Willis Tower and the Chicago River

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profiles online

www.psychologicalscience.org/observer/rising-stars

RISING STARS

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CATHERINE NORRIS 25

ATSUSHI SENJU 25

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ESSI VIDING 27

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In case there was any doubt, the future of psychological science is in good hands. In a continuing series, the *Observer* presents more Rising Stars, exemplars of today's psychological scientists. Although they may not be advanced in years, they are making great advancements in science. The following are excerpts of the Rising Stars profiles. The full profiles are available online at www.psychologicalscience.org/observer/rising-stars.



Bridgid Finn

Washington University, USA

<http://sites.google.com/site/bridgidfinn2/>

What does your research focus on?

My research is focused on the cognitive processes that are involved in regulating memory and learning. Much of my research targets how metacognition is used to guide learning. Specifically, I'm interested in identifying the biases that affect how people make assessments about their knowledge, and how these biases affect decisions about learning. Recently, I have been working on understanding the mechanisms involved in memory retrieval, and in particular the role that reconsolidation and post-retrieval processes may play in strengthening memory after retrieval.

What publication are you most proud of or feel has been most important to your career?

Finn, B. & Roediger, H. L. (2011). Enhancing retention through reconsolidation: Negative emotional arousal following retrieval enhances later recall. *Psychological Science*, 22, 787-794.

In this paper we explored the role that reconsolidation may play in strengthening a memory following its reactivation. We found that emotional events that occur just after retrieval enhance later recall, implicating a process of reconsolidation whereby memories are subject to modification upon their reactivation. One of the reasons that I like this paper is because it attempted to synthesize findings from several areas of psychology (neurobiology, animal learning, human memory, and emotion) to get at the central question of why retrieval benefits memory. The research also broadened my thinking about the nature of memory retrieval in general — as involving a period of processing that follows successful retrieval in addition to the processes involved in the retrieval attempt.

Read Bridgid's full profile online at www.psychologicalscience.org/observer/rising-stars/?n=finn

Iris Kolassa

University of Ulm, Germany

www.uni-ulm.de/en/in/psy-paed/professuren/klinbiopsy/staff/prof-dr-iris-tatjana-kolassa.html



What does your research focus on?

I have two research interests: First, the consequences of (traumatic) stress on the brain, the mind, and one's molecular biology. Second, changes in the brain in aging and mild cognitive impairment as well as Alzheimer's disease and the role of physical exercise and cognitive trainings in preventing age-related cognitive decline.

What publication are you most proud of or feel has been most important to your career?

This is definitely the paper on the role of the alpha-2b adrenergic receptor in emotional memory formation:

de Quervain, D. J.-F., Kolassa, I.-T., Ertl, V., Onyut, P. L., Neuner, F., Elbert, T., & Papassotiropoulos, A. (2007). A deletion variant of the $\alpha 2b$ -adrenoceptor is related to emotional memory in Europeans and Africans. *Nature Neuroscience*, 10(9), 1137-1139.

It fascinates me that something that is adaptive in one context (deletion-variant carriers of this receptor have better emotional memories) can be maladaptive in another situation (deletion-variant carriers also have more intrusions, i.e., a form of emotional-fear memory, after traumatic stress).

Read Iris' full profile online at www.psychologicalscience.org/observer/rising-stars/?n=kolassa



Catherine J. Norris

Dartmouth College, USA
<http://norris.socialpsychology.org/>



What does your research focus on?

I'm interested in how individuals differ in their responses to emotional stimuli, how these emotional responses are affected by social factors, and the consequences of these patterns of responding for mental and physical health. I'm currently pursuing these interests in three separate lines of research. First, I study basic emotional processes like the negativity bias, the propensity to respond stronger to unpleasant than to pleasant events, and how they differ across individuals. For example, we have found that neurotic individuals show larger and more extended skin conductance responses to emotional (particularly unpleasant) images, suggesting that they are both more reactive and less able to regulate their responses, a pattern that could affect physical health over the lifecourse. Second, I'm investigating emotional processes involved in social exclusion, or the feeling that one's social connections are lacking. Using fMRI, we have found that both chronically lonely individuals and participants experiencing acute social exclusion in the laboratory show decreased activation of the mentalizing network (e.g., TPJ, mPFC) when viewing pictures of people in distress. Third, I'm applying some of my work on interactions between emotional and social cognitive processes to study race bias, or negative feelings toward outgroup members.

What publication are you most proud of or feel has been most important to your career?

Norris, C. J., Gollan, J., Berntson, G. G., & Cacioppo, J. T. (2010). The current status of research on the structure of affective space. *Biological Psychology: Special Issue on Emotion*, 84, 422-436.

I am proud of this paper because it allowed me to summarize, unite, and extend much of the research that I've done on basic emotional processes in a single, common structure. In addition, we proposed a number of new hypotheses regarding how emotion functions, which have ultimately provided me with a scaffolding for future research. The opportunity to expand the theory that guides much of my research was a privilege and provided the occasion to reflect on what the field of emotion research has accomplished and what questions remain.

Read Catherine's full profile online at www.psychologicalscience.org/observer/rising-stars/?n=norris



Atsushi Senju

Birkbeck College, UK
www.bcbd.bbk.ac.uk/people/scientificstaff/atsushi

What does your research focus on?

My research focuses on the typical and atypical development of the "social brain" — the network of neural structures specialized to process the social world that enables us to learn effectively from, interact with, and influence the behavior of others. I want to understand how young infants achieve these amazing abilities and how these capacities shape the development of adult social skills. I am interested in the reasons why individuals with autism, a developmental disorder characterized by profound difficulties in social interaction and communication, have difficulties in developing effective social skills.

What publication are you most proud of or feel has been most important to your career?

Senju, A., Tojo, Y., Dairoku, H., & Hasegawa, T. (2004). Reflexive orienting in response to eye gaze and an arrow in children with and without autism. *Journal of Child Psychology and Psychiatry*, 45, 445-458.

The above paper is the first that I submitted to an international journal. It involved four revisions and took more than a year to get accepted. This review process was my first chance to "meet the world" at a time when I was virtually the only person in Japan working on this topic. The experience boosted my confidence and strongly motivated me to meet, talk, and collaborate with other like-minded scientists across the globe, which created my current research style. Additionally, it remains the second most-cited paper among all of my publications.

Read Atsushi's full profile online at www.psychologicalscience.org/observer/rising-stars/?n=senju



Victoria Southgate

Birkbeck University, UK

www.cbcd.bbk.ac.uk/people/scientificstaff/vicky

What does your research focus on?

I am interested in the cognitive and neural mechanisms that enable young children, from early infancy, to interact with and learn from other people, and how these might differ from other species. We know a great deal about the kind of social abilities that even very young infants possess, but we know much less about the neural mechanisms that underpin these abilities. My current research investigates the cognitive and neural mechanisms that enable infants to understand and predict the actions of others. Basic action understanding and prediction is a fundamental prerequisite for being able to learn from, and interact with, others.

What publication are you most proud of or feel has been most important to your career?

One paper that means a lot to me is this one. It was the result of a lot of hard work and methods development, and it has given me a new tool by which to explore what infants know about others' actions.

Southgate, V., Johnson, M. H., El Karoui, I., & Csibra, G. (2010). Motor system activation reveals infants' online prediction of others' goals. *Psychological Science*, 21, 355-359.

Read Victoria's full profile online at www.psychologicalscience.org/observer/rising-stars/?n=southgate

Maarten Vansteenkiste

Ghent University, Belgium

www.voppsy.ugent.be/en/developmental-psychology/maarten-vansteenkiste.html



What does your research focus on?

I focus on motivational dynamics in my research. I would like to understand how different reasons for engaging in an activity and pursuing different goals are related to outcomes, such as performance, persistence, learning, and well-being. Often, it is assumed that better outcomes will follow when people are more strongly motivated to engage in an activity. Yet, research findings show that it is critical to consider the type of motivation (i.e., autonomous or controlled) and the type of goals (i.e., intrinsic or extrinsic) people have for engaging in an activity to understand whether they will be productive, engaged, and persistent. Through my research, I try to expand Self-Determination Theory (Deci & Ryan, 2000; Ryan & Deci, 2000), a well-known and empirically validated motivation theory. I have been using SDT as a source of inspiration to study motivational dynamics in a variety of life domains including education, parenting, psychotherapy, ecology, work and unemployment, and sports and exercise.

What publication are you most proud of or feel has been most important to your career?

Vansteenkiste, M., Simons, J., Lens, W., Sheldon, K. M., & Deci, E. L. (2004). Motivating learning, performance, and persistence: The synergistic effects of intrinsic goal contents and autonomy-supportive contexts. *Journal of Personality and Social Psychology*, 87, 246-260.

In a series of experimental studies that took place in real-life classes, we examined whether the way a learning activity was introduced to learners would impact the depth of their learning, their performance, and subsequent persistence. We varied the way in which the learning activity was introduced by using higher-pressure language for one group of learners (e.g., "should," "have to") and using more inviting and autonomy-supportive language for a second group of learners (e.g., "could"; "choose"). This style of introducing the learning activity was crossed with the way the learning activity was framed in terms of goals. That is, for some learners the learning material was said to be useful for attaining an intrinsic goal (e.g., helping the community, self-development), while for other learners it was said to be useful for attaining an extrinsic goal (e.g., financial success, physical attractiveness). Overall, the findings indicated that teachers may want to adjust their language, trying to use more inviting and autonomy-supportive rather than pressuring language. Also, they would do well to explain the relevance of each learning activity to attaining intrinsic goals.

Read Maarten's full profile online at www.psychologicalscience.org/observer/rising-stars/?n=vansteenkiste

Essi Viding

University College London, UK
www.ucl.ac.uk/psychlangsci/staff/cehp-staff/e_venting



What does your research focus on?

My research focuses on understanding different developmental pathways to persistent antisocial behavior. I have a particular interest in a subgroup of children who not only have behavioral problems, but also have callous-unemotional traits.

What publication are you most proud of or feel has been most important to your career?

Viding, E., Blair, R. J. R., Moffitt, T. E., Plomin, R. (2005). Evidence for substantial genetic risk for psychopathy in 7-year-olds. *Journal of Child Psychology and Psychiatry*, 46(6), 592-597.

This paper from my PhD used the twin design and demonstrated that antisocial behavior is strongly heritable in children with callous-unemotional traits, but mostly due to environmental influences in children without callous-unemotional traits. It adds to the evidence base from other labs suggesting that children with conduct problems and callous-unemotional traits are a meaningful subgroup that have a biological vulnerability to behavioral problems. The challenge is to figure out what environmental factors trigger that biological vulnerability and what protective mechanisms could be put in place to ensure that these children do not get side-lined from society.

Read Essi's full profile online at www.psychologicalscience.org/observer/rising-stars/?n=venting



Savio Wong

Hong Kong Institute of Education, Hong Kong
www.ied.edu.hk/ps/view.php?m=646&secid=1701

What does your research focus on?

My research focuses on examining body and brain interaction and its role in decision making. My studies integrate psychophysiological measurements with functional magnetic resonance imaging (fMRI) to examine the cortical modulation of the autonomic nervous system during decision making. Recently, I expanded my research into educational neuroscience. My recent study examines the role of education in shaping the development of the neural substrate that is involved in decision making. It is an exciting collaboration with Sheung-Tak Cheng and Rebecca Cheng at the Hong Kong Institute of Education (HKIEd). Our goal is to advance our understanding of the neural mechanisms of learning and to develop biomarkers that can help teachers to identify and address the individual needs of students more effectively.

What publication are you most proud of or feel has been most important to your career?

Wong, S. W., Massé, N., Kimmerly, D. S., Menon, R. S., & Shoemaker, J. K. (2007). Ventral medial prefrontal cortex and cardiovascular control in conscious humans. *NeuroImage*, 35, 698-708.

This paper reported the cortical modulation of parasympathetic nerve activity in healthy humans. Our results showed that, in addition to the brainstem autonomic center, the ventral medial prefrontal cortex (vMPFC) is also involved in modulating autonomic responses. The literature on lesion studies shows that the vMPFC plays a critical role in decision making. The findings of this study provided the crucial link between parasympathetic nerve activities and decision making in healthy individuals.

Read Savio's full profile online at www.psychologicalscience.org/observer/rising-stars/?n=wong





\$100,000

Nominations Deadline:
February 20, 2012

Winner Announcement:
December 2012

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E-Mail: grawemeyer.psychology@louisville.edu

Website: www.grawemeyer.org

Prior Winners

2002	James McClelland & David Rumelhart
2003	Daniel Kahneman & Amos Tversky
2004	Aaron Beck
2005	Elizabeth Loftus
2006	Lynn Nadel & John O'Keefe

2007	Giacomo Rizzolatti, Vittorio Gallese & Leonardo Fogassi
2008	Albert Bandura
2009	Anne Treisman
2010	Ronald Melzack
2011	Walter Mischel

Reflections on Wikipedia in the Classroom

By Mona Ibrahim



Mona Ibrahim

Learning in today's internet-dependent world requires new pedagogies. There is a real need to design assignments that better appeal to today's students and allow them to engage more meaningfully and responsibly in the world we currently live in. I joined the APS Wikipedia initiative for the first time this semester and decided to replace a traditional research paper assignment with a Wikipedia assignment in which students either

for students to select from.

Students also appreciated the portal for allowing them to see what others in the class were contributing and to identify classmates who could help them with editing difficulties. They liked the fact that the portal provided them with an easy way to complete peer reviews and that it provided a mechanism to ensure that each of their articles received an equal number of peer reviews. Moreover, the portal allowed the class to develop a sense of community and to communicate more readily with one another.

Throughout the semester, I received more valuable feedback from students on different aspects of the project. Many students indicated that they were apprehensive about the Wikipedia project at first (which was surprising to me, given the tech-savvy reputation their generation has), but they found the project more enjoyable as they proceeded with it. They felt their work was meaningful because their contributions are shared with the entire world, rather than just their instructor. They liked that their contributions will not end up in a drawer after the semester ends, but will continue to be available to many people as a useful resource. Some students even noted with pride that their contributions might have wider use than some articles published in academic journals.

My students appreciated the interactive, communal nature of the project and felt that it reflected what learning in the real world is all about. They found the challenge of presenting technical psychological information in a clear style to the general public to be a valuable learning experience. While some students felt intimidated by writing for the public on a psychological topic when they are only beginning to learn the subject, others appreciated the fact that it pushed them to develop a deeper understanding of the information they are trying to communicate.

Students greatly appreciated the feedback they received from classmates who reviewed their articles and many students wished they had received more feedback from Wikipedia editors and users. My students talked about how their self esteem was threatened when they received criticism of their writing, but they also reported that they experienced personal growth as they learned to provide more constructive criticism to others as well as to absorb criticism better themselves and use it to improve their work.

There was some frustration with the amount of time it took to figure out the Wikipedia editing syntax. My students wished they were able to dedicate more time to the research process itself and less time to learning Wikipedia code. There was also some disappointment with the speed of the

created or significantly expanded a Wikipedia article.

I chose to pilot the Wikipedia project in a General Psychology course. This course is very popular on campus and has the potential to draw many students into the psychology major. Therefore, I believe this course needed to be attractive to students and taught effectively. My students worked on Wikipedia articles in teams. The teams completed their significant edits and then spent the rest of the semester providing feedback on articles from other teams. They will also be improving their own articles by adding images and links to other pages as well as addressing the suggestions from their class peers and the feedback from the Wikipedia reviewers and the public on the articles' discussion pages.

In planning the Wikipedia assignment, I found the online resources and sample Wikipedia assignments provided by APS indispensable. The sample assignments helped me develop a realistic timeline for the project and come up with a grading scheme that took into account all aspects of the work involved in such a project. The APS portal facilitated assessment of student contributions and effort by providing summary data of the amount of time, number of words, and particular text that each student contributed. The APS portal also provided a helpful list of psychology-related Wikipedia articles in need of improvement

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Wikipedia review process. If you're thinking of offering a Wikipedia assignment to your students, I have a few suggestions to make it go as smooth as possible: 1) Enlist the help of an expert Wikipedia Ambassador who can provide in-class editing demonstrations for students, 2) encourage students to be pro-active by sending requests for feedback to specific individuals and by nominating their articles for Wikipedia's Good Article status, 3) have students who are creating a new Wikipedia article start the process of posting their edits to Wikipedia very early in the semester, and

4) consider limiting the assignment to upper level courses. Overall, I feel the Wikipedia assignment has been a positive experience for my students and for me. ●

Editor's Note: For information about the Wikipedia Ambassador program, visit http://outreach.wikimedia.org/wiki/Wikipedia_Campus_Ambassador. Go to www.psychologicalscience.org/apswi for more information on the APS Wikipedia Initiative.

CLINICAL TRAINING from Page 19

collect outcome data by purchasing tablet computers that patients could use in their clinic waiting room. Washburn said the funds will also be used to educate students in the measurement technology needed to assess clinical outcomes.

Overall, SSCP was thrilled with the creativity and diversity of ideas proposed for this new grant program.

"This is a prime time for innovation in clinical science training," said APS Fellow Varda Shoham, President of SSCP. "Despite impressive advances in developing empirically supported

interventions, we now know that these treatments too often do not reach patients in community settings who need them most. Increasingly, faculty in clinical psychology programs recognize that we have a crucial role in bridging the science-practice gap."

Shoham says that SSCP hopes to help bring more of these ideas to fruition.

"The enthusiastic response to this award announcement is so encouraging," she said. "Our only regret is that we do not have more to give." ●



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Tips for Incorporating Writing Into An Introductory Statistics Course

By Karen Y. Holmes

Statistics educators know all too well that teaching statistics can be a challenge, even for the most experienced instructors. Students often bring with them anxieties and misperceptions that can lead to a tense and frustrating learning environment, compelling many students to delay taking a statistics course or in some cases, avoid pursuing a major that has the completion of a statistics course as a requirement (Sgoutas-Emch & Johnson, 1998). In light of these challenges, what is a statistics instructor to do?

One strategy I've found to be effective is incorporating writing into the introductory statistics course. Encouraging students to write can minimize statistics anxiety and enhance statistics performance (Sgoutas-Emch & Johnson, 1998). I use a multi-level writing approach that engages students in three areas:

- Writing to minimize anxiety
- Writing to deepen conceptual understanding
- Writing to develop statistical thinking and reasoning skills

Level 1: Writing to Reduce Statistics Anxiety

In my class, I use low-stakes writing activities that provide students an opportunity to discuss their anxiety in a non-threatening manner while forming a positive, non-judgmental learning environment (Firmin & Proemmel, 2008). When instructing students to write for the purpose of reducing anxiety, the most important thing is simply the process of writing rather than the grading of the activity. So instructors should periodically assign a writing activity as a way to assess students' anxiety level throughout the term.

Statistics Journal: Requiring students to write about their concerns, fears, and anxieties in a journal is an effective tool for reducing statistics anxiety (Sgoutas-Emch & Johnson, 1998). This activity requires students to keep a journal in which they periodically write about their anxiety level throughout the duration of the term, especially before and after each exam. Additionally, students should discuss their feelings about the course at various intervals, such as after the first week of the course, the end of the first month, and at midterm. At these times, instructors should encourage students to compare their present feelings with their initial feelings from the beginning of the course. Periodically collecting and skimming the journals represents a good opportunity to assess students' anxiety levels throughout the term and also provides opportunities for students to discuss their feelings and anxieties about statistics in a non-threatening outlet (Firmin & Proemmel, 2008).

Flip It: For this writing activity, divide students into small groups and task them with generating a list of five to ten adjectives that describe their feelings and perceptions about taking a statistics course. Next, have them generate a second list of more positive adjectives to replace the original list. For example, a group may create an initial list describing statistics as "hard," "fear inducing," and "irrelevant." A second, more positive list of descriptors may include adjectives such as "challenging," "fearless," and "significant." After the groups have compiled their lists, have them provide recommendations and suggestions for how they will realize the second list. After giving the groups 15 minutes to work on this activity, have each group report back to the class. It is important to note that in the event a group generates an initial list that is overwhelmingly positive, the second list should be omitted and the group should provide the class with insight into their positive attitude about taking a statistics course.

Statistics Simile: Mark J. Sciutto (1995) offers this quick and easy writing activity; all students have to do is complete the stem, "A class in statistics is like _____." After five minutes, collect the papers and share the responses with the class. The benefits of this activity are enormous. Students are reassured that they are not alone in their anxiety and it serves as an icebreaker for a course that is inherently anxiety provoking (Hulsizer & Woolf, 2009).

Take a Letter: To get students to reflect on their experiences and growth in statistics, have them write a letter to a future statistics student or post a message to their Facebook page describing their initial anxiety about taking a statistics course. In addition, students should offer insight into how they managed their anxiety. To expand the benefits of this assignment, distribute copies of the letters to future students or post select letters to the course Web page for incoming students to read.

Level 2: Writing to Deepen Conceptual Understanding of Statistics Concepts

These discipline-specific writing activities facilitate conceptual understanding of statistics by encouraging students to think through ideas and provide explicit, detailed answers to questions. These assignments can be used as non-graded activities, or they could be collected and students could be awarded points depending on the accuracy and thoroughness of their answers.

Concept Check: This activity is based upon the popular minute paper. This assignment encourages students to provide responses to questions posed after a class discussion of a specific statistics topic. For example, students may be asked to discuss the three measures of central tendency and the appropriateness of their use, or discuss the concept of variability for a person who

has never taken a statistics course. After giving students a minute or two to write their answers, discuss the responses as a class. This writing activity can serve as a review of previously learned concepts and can provide valuable information to instructors concerning their students' level of conceptual understanding.

A Meaningful Paragraph: One of my favorite writing activities is Elaine Backus's (as cited in Jordan, 2008) *meaningful paragraph*. This assignment requires students to develop a paragraph that uses all of the major concepts from a given topic to develop a complete and coherent sentence. The goal of this writing assignment is to demonstrate understanding of the relationship between each of a set of terms. After students complete their paragraphs, have them share what they have written with the class. Below is a meaningful paragraph for the terms "population," "sample," "data," and "variable."

*Recently, psychologists have discovered a link between heart disease and depression. Researchers studied a **sample** of 100 adults, drawn from a **population** of 6,000. Each participant contributed two pieces of **data**: presence of heart disease and level of depression. Researchers also assessed additional **variables** such as race, gender, and age. Findings indicated that people with heart disease were more likely to suffer from depression.*

Entrance and Exit Slips: Arnold Stromberg and Subathra Ramanathan (1996) developed this interesting writing activity, which consists of students writing — on three-by-five index cards — short answers to prompts such as, "briefly discuss a topic from the previous class period that you would like the instructor to re-explain," "discuss a concept from last class period that you found difficult," or "briefly summarize the main idea of the assigned readings." These assignments can be collected as an "entrance slip" to class as a way to increase attendance and to verify student understanding of the assigned reading. Conversely, these assignments can be used as an "exit slip" from the class. Before ending class, encourage students to summarize in two to three sentences what they learned during the class period. This activity provides valuable information regarding students' comprehension of the material.

Compare and Contrast: To get students thinking about the relationship between concepts, have students write about the similarities and differences between two related statistics concepts. For example, for the concepts of "mean" and "median," an important similarity between these two terms is that they are both measures of central tendency, and a difference is that the mean is used most often with interval/ratio data while the median is used most often with ordinal data. Students can

compare and contrast terms such as "population and sample," "independent variable and dependent variable," "Type I error" and "Type II error," "nominal and ordinal scales of measurement" and "descriptive statistics" and "inferential statistics." After 5 to 10 minutes, have students share their answers with the rest of the class.

Level 3: Writing to Develop Statistical Thinking and Reasoning Skills

These writing activities encourage students to be reflective in their thinking, and to engage in higher-order cognitive processing of the course material, namely application, evaluation, interpretation, and synthesis. These activities can also be used as non-graded assignments or can be collected and graded based upon the accuracy and thoroughness of the answer. Additionally, multiple assignments of this type should be given throughout the term to facilitate the development of students' statistical thinking and reasoning skills.

The Research Scenario: This activity requires students to apply various research and statistical concepts to a research scenario. For the following research design, students should be asked to identify (a) the independent and dependent variables, (b) the appropriate scale of measurement for each variable, and (c) the appropriate statistical test with a one sentence justification of their choice.

A researcher is interested in examining the relationship between assertiveness and level of stress in college students. She believes that college students who are more assertive experience less stress than students who are less assertive. She surveys a random sample of college students and asks them to complete a questionnaire in which they rate their level of assertiveness and level of stress on a 5-point scale. How would the researcher determine if there is a relationship between assertiveness and stress?

Allow students approximately 10 minutes to complete this activity, and then have a few students share their answers with the class. To reinforce learning, I typically assign this type of writing activity after the introduction of each new hypothesis test.

The Article Critique: One of the most effective ways to foster students' statistical thinking and statistical reasoning skills is by introducing the article critique. To begin, provide students with several articles that detail the statistical test discussed in class and ask them to choose one. Next, have students provide answers to prompts such as:

- State the hypothesis of the study.
- Identify and discuss the independent and dependent variables.
- In two to three sentences, discuss the appropriateness of the statistical analyses presented in the article.
- Did the researcher draw appropriate conclusions based upon the data? Explain.

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Instructors can collect this assignment to check it for accuracy. I typically assign three points for each correct answer and provide feedback for incorrect responses. The idea is not to provide the students with the correct answers but to provide them with sufficient prompts to get them thinking. For example, if a student incorrectly identifies the independent variable in their article as the dependent variable, I may write, “Go back to your text and review the definitions for independent variable and dependent variable,” or “Was this variable measured or manipulated?”

Did I Make the Right Decision? An important aspect of statistical thinking and reasoning is being able to analyze the data analysis strategy for accuracy. A writing activity that I developed involves a research scenario that contains inaccurate or inappropriate details, such as:

A researcher conducts tests among three experimental drugs — Xylefal, Zykal, and Tanocal — being tested for use with Alzheimer’s patients. He wants to determine if differences exist in their effects on mental ability. He decides to use the t-test for independent groups to test all pairwise comparisons.

After allowing students time to review the scenario, have them briefly discuss in two to three sentences why they believe the statistical technique is inappropriate as well as what would be a more appropriate technique and why. After giving students 10 minutes to complete their answers, have students share their responses with the class. Again, this type of activity should be assigned multiple times during the term to facilitate the development of statistical thinking and reasoning skills.

Interpret It: Requiring students to interpret printouts is another effective way of developing students’ statistical thinking and reasoning skills. For this activity, provide students with a research scenario and an accompanying PASW (SPSS)-generated printout of instructor-created data. Have the students answer a series of questions that assess their evaluation and interpretation of the scenario and the printout. Here is an example of a scenario, the accompanying data, and a series of questions for the students:

An Industrial Organizational psychologist is interested in examining the relative effectiveness of three leadership styles on worker productivity. A sample of $n = 15$ assembly line workers is obtained. These individuals are randomly assignment to each of the three leadership conditions: Authoritarian, Democratic, and Delegative. The number of units workers produced in a 10-hour shift is recorded.

ANOVA

Productivity

	Sum of Squares	dF	Mean Square	F	Sig.
Between Groups	329.200	2	164.600	159.290	.000
Within Groups	12.400	12	1.033		
Total	341.600	14			

Multiple Comparisons

Tukey HSD

(I) leadership	(J) Leadership	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Authoritative	Democratic	-10.40000*	.64291	.000	-12.1152	-8.6848
	Delegative	-9.40000*	.64291	.000	-11.1152	-7.6848
Democratic	Authoritative	10.40000*	.64291	.000	8.6848	12.1152
	Delegative	1.00000	.64291	.301	-.7152	2.7152
Delegative	Authoritative	9.40000*	.64291	.000	7.6848	11.1152
	Democratic	-1.00000	.64291	.301	-2.7152	.7152

*The mean difference is significant at the 0.05 level.

The data are as follows:

1. Why is the one-way ANOVA, rather than the independent samples *t* test, appropriate for this study?
2. Study the table and comment on whether the means for the three leadership styles differ significantly. In other words, does leadership style influence worker productivity? Explain.
3. In terms of these data, discuss why it is appropriate to conduct post hoc tests after the initial analysis of variance? Under what circumstances would it be inappropriate to conduct post hoc tests after performing a one-way ANOVA?
4. Discuss what these post hoc tests tell you that you could not determine from the initial analysis of variance.
5. Use the information in the tables above to write an APA-style results section.

This activity is typically completed outside of class, and graded in the same way as the “Article Critique” assignment. I assign three points for each correct answer and provide written feedback in the form of reflective prompts for the incorrect answers. Once again, this type of writing activity should be assigned multiple times throughout the term to facilitate the development of students’ statistical thinking and reasoning skills.

Summary

Incorporating writing into an introductory statistics course can be an effective teaching tool. These assignments encourage students to take responsibility for their learning by acknowledging and dealing with anxiety that can interfere with their performance. This multilevel approach to writing moves students through several stages of statistical development — from basic comprehension to application and interpretation to synthesis

and evaluation. I hope you find these ideas helpful, and that you will consider incorporating writing into your introductory statistics course.

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Scan with phone

State of the APS Student Caucus

By Jessica T. Wong

Looking back on the past, assessing the present, and preparing for the future are important for determining goals and evaluating our progress throughout our lives. The goals of the APS Student Caucus (APSSC) are to promote, protect, and advance scientific psychology; to enhance the professional development of its members; and to improve psychological science training. To accomplish these goals, the APSSC coordinates a series of yearly programs and annual convention events designed for APS Student Affiliates.

The APSSC Executive Board held its annual Fall Meeting at the APS headquarters in Washington, DC, from September 30 to October 1, 2011, to evaluate our effectiveness and to assess current student needs. We reviewed feedback from students on the annual Student Affiliate survey as well as emails and casual conversations. We also discussed current challenges, the present effects of programming changes made over the course of APSSC history, and how to improve our programming for this year.

I am pleased to report that the APSSC is thriving. Our membership is growing, and our convention events, funding opportunities, communications, and publications have maintained high levels of student involvement. The APSSC Board is working to ensure this trend continues.

Membership

The APSSC continues to grow and, as of November 2011, we have a membership of 7,559 students from over 1,200 institutions—both of these numbers are up from this same time last year. In addition, the APSSC has increased its international representation with more than 1,000 members outside the United States. These increases in membership can be attributed, at least in part, to the work of over 100 campus representatives and seven regional representatives. Moreover, we have expanded our regional representation to Europe, Asia, Australia/New Zealand, and Oceania in addition to the regional representatives within the United States. On this front, Michelle Patriquin (Membership and Volunteers Officer) has been instrumental in conducting membership drives, recruiting representatives, and spreading awareness of APS/APSSC both locally and abroad.

Convention

The APSSC held a variety of student events at the 23rd Annual APS Convention in Washington, DC, this past May. The Student Social on opening night attracted more than 350 graduate and

undergraduate members in a casual networking environment. The next day, the three panels comprising *The Naked Truth* series provided students with practical advice on the graduate-school application process, life as a graduate student, and applying for academic jobs. The *How to Get Published* panel provided students and professionals with tips on submitting work to peer-reviewed journals. The following day, outstanding student work was recognized during the *RISE Research Award* and *Student Research Award* symposia. Finally, the *Champions of Psychology* event enabled students to have candid conversations with influential psychological scientists in a small group setting. All of these convention events had increased attendance from the previous year and high audience interest.

Funding Opportunities

Many students are concerned about the availability of funding, both for conducting research and for education-related expenses. The APSSC offers three award competitions each year: the Student Grant Competition, the Student Research Award, and the RISE Research Award. Applications are evaluated by peer reviewers, and multiple winners are chosen for each competition. This past year, the number of applications, as well as the number of reviewers for all three competitions, nearly doubled. Applicants report that the reviewer feedback they receive is very helpful, and the reviewers gain valuable experience for their professional development. In the 2012 awards cycle, Sean Hughes (Graduate Advocate) and Andrew Sage (RISE Coordinator) will work to better advertise the competitions and improve the application process. In addition to these three awards, the APSSC provides travel-related assistance to help Student Affiliates attend convention. Unfortunately, the need for assistance is much greater than the funds available. There is no easy solution, but we try to support students with the greatest financial need. APSSC also lists psychology fellowships and awards in our monthly eNewsletter.

Communications and Publications

The APSSC uses a variety of methods to communicate with members and to publish student work. Nathan Medeiros-Ward (Communications and Marketing Officer) manages our monthly eNewsletter, which includes program announcements, practical advice, funding opportunities, and recognition of student members who have done outstanding service for APSSC. Facebook (facebook.com/apssc) and Twitter (<http://twitter.com/#!/APSSStudent>) help us stay in touch with members and allow us to quickly disseminate relevant updates and information about psychological science.

The APSSC also has two publications that address relevant professional development concerns such as research methods, work-life balance, and graduate school applications. Nicholas

Jessica T. Wong is the APS Student Caucus President as well as a fourth-year doctoral student in cognitive psychology at University of Chicago. Her research uses behavioral and neuroimaging methods to investigate age-related changes in memory and their underlying neural mechanisms. She can be contacted at apssc.president@psychologicalscience.org.

Eaton (Student Notebook Editor) solicits and edits student-written articles for the *Observer*. For undergraduate members, Kris Gunawan (Undergraduate Advocate) coordinates the online *Undergraduate Update*, which features articles relevant to undergraduate students (e.g., graduate school applications or gaining research experience). Both publications showcase student work, and they receive positive feedback from student members. In addition, Gunawan oversees the undergraduate mentoring program, which pairs undergraduates with graduate students who share their scientific interests. This program has been slowly growing, and students who get involved have found it to be very rewarding.

Current Directions

The Board and I seek to expand our programming to meet current student needs and continue to improve current projects. One student concern that has garnered more attention in recent years is work-life balance, particularly with respect to family, children, and long-distance relationships. We are currently working on *Student Notebook* and *Undergraduate Update* articles as well as convention events to address this issue. In addition, because funding continues to be a primary concern of Student Affiliates, we will continue to make enhancements to the Online Funding Database and work toward a searchable resource. We have recruited student reviewers to help keep the database as current as possible by checking the relevance of the announcements, dates, and links. Finally, we will continue to promote all three APSSC award competitions.

The impact and effectiveness of the APSSC continues to grow. It is my hope, and my expectation, that this trend will continue. I would like to publicly recognize and thank the current Board for their service and dedication to the APSSC this year: Nicholas Eaton, Kris Gunawan, Sean Hughes, Nathan Medeiros-Ward, Michelle Patriquin, Andrew Sage, and Peter Vernig. I would also like to thank all of APSSC's members — we are thriving thanks to your support. See you in Chicago for the 2012 Annual Convention!

Special Funding Opportunity for Students

NIH Director's Early Independence Awards

The NIH has announced a new funding opportunity for junior investigators who wish to "skip the post-doc" and immediately begin independent research. Eligible candidates must be within one year of receiving their terminal research degree or completion of clinical residency, and up to two applications per institution are permitted. All areas of research relevant to the mission of the NIH are welcome. The award budget may be up to \$250,000 in direct costs per year for up to five years.

The deadline for submitting Early Independence Award applications is January 30, 2012. Additional information is available at: <http://commonfund.nih.gov/earlyindependence/>. Send questions to earlyindependence@mail.nih.gov.

Student Notebook Announcements

Now accepting submissions for the RiSE Research Award!

Submissions for the RiSE Research Award (RRA) are now open through January 31, 2012. The purpose of this award is to promote and recognize scholarly research by APS student affiliates. The RRA focuses on research related to socially and economically underrepresented and/or international populations. Details online: www.psychologicalscience.org/index.php/members/rise/research-award

Questions? Contact the RiSE coordinator, Andrew Sage (apssc.rise@psychologicalscience.org)

Attending the 2012 APS Convention? Submit your work for the Student Research Award!

Each year the Student Research Award offers a number of monetary prizes in recognition of outstanding research scholarship by APS student affiliates. In addition, winners of the competition also present their work as part of the "Student Research Award-Winners Symposium" during the APS Annual Convention. Applicants will gain valuable experience in scientific writing and receive feedback on their work from peer reviewers. Both graduate and undergraduate student affiliates are strongly encouraged to apply and the deadline for submissions is January 31, 2012. For more information please visit: www.psychologicalscience.org/index.php/members/apssc/about/student-research-award

The Student Notebook is looking for authors!

If you are interested in writing an article, please contact Nicholas Eaton, the Student Notebook Editor (apssc.sneditor@psychologicalscience.org), to brainstorm ideas or to get more information. You may also find out more by visiting: www.psychologicalscience.org/apssc/news.cfm

2011-2012 APS Student Caucus Executive Board

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Teresa Amabile, Harvard University, *The Wall Street Journal*, December 7, 2011: How to Save an Unproductive Day in 25 Minutes.

 **Dan Ariely**, Duke University, *Scientific American*, December 7, 2011: Creativity Linked to Rule Bending.

Alan Baddeley, University of York, *BBC News*, November 20, 2011: How Can Musicians Keep Playing Despite Amnesia?


Lisa Feldman Barrett, Northeastern University, *Wired*, December 1, 2011: The Psychology of Nakedness.

 **Camilla Persson Benbow**, Vanderbilt University, *Financial Post*, December 1, 2011: What Happens to Math Nerds When They Get Older.

Carol Dweck, Stanford University, *The Washington Post*, December 5, 2011: Montgomery County School Chief Starts Special Book Club.


Zachary Estes, University of Warwick, *Daily Mail*, December 7, 2011: Why You Should Always Tell a Woman Her Parking Is Perfect... If You Want Her Skills to Improve.


Terri Fisher, Ohio State University, *USA Today*, December 2, 2011: Study Shows Men Don't Think About Sex As Often As Thought.


 **Francesca Gino**, University of North Carolina at Chapel Hill, *Scientific American*, December 7, 2011: Creativity Linked to Rule Bending.


Kurt Gray, University of Maryland, College Park, *Wired*, December 1, 2011: The Psychology of Nakedness.


Steven Heine, University of British Columbia, *Scientific American*, December 7, 2011: The WEIRD Evolution of Human Psychology.


 **Wray Herbert**, Association for Psychological Science, *Huffington Post*, December 6, 2011: It's Flu Season — Watch Your Prejudices; *Huffington Post*, December 1, 2011: The Psychology of Health Screening.


 **Jennifer Howell**, University of Florida, *Huffington Post*, December 1, 2011: The Psychology of Health Screening.

 **Julie Y. Huang**, Yale University, *Discover Magazine*, December 6, 2011: Study: Vaccines and Hand-Washing Can Reduce Prejudice Against Immigrants, the Obese, and Crack Addicts.

 **Alan G. Kraut**, Association for Psychological Science, *The Chronicle of Higher Education*, December 5, 2011: Despite Occasional Scandals, Science Can Police Itself.

 **Sabine Krawietz**, University of Notre Dame, *Scientific American*, December 2, 2011: Doorway to Blame for Room Amnesia.

 **Patricia Kuhl**, University of Washington, *Yahoo! France*, December 2, 2011: Le 20^{ème} Prix de Neuropsychologie Jean-Louis Signoret de la Fondation Ipsen est attribué au Pr. Patricia K. Kuhl.

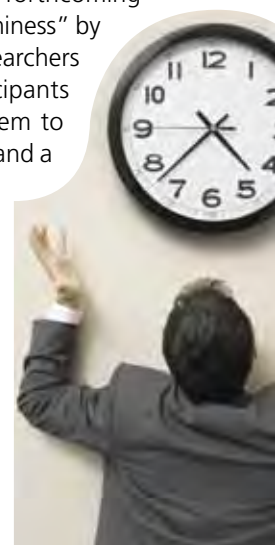
 **David Lubinski**, Vanderbilt University, *Financial Post*, December 1, 2011: What Happens to Math Nerds When They Get Older.

How Impatience Kills Your Credit Score

According to research in the January issue of *Psychological Science*, impatient people tend to have lower credit scores. *Forbes* contributor David DiSolvo reported on the forthcoming study "Time Discounting Predicts Creditworthiness" by Stephan Meier and Charles Spenger. The researchers asked 437 low-to-moderate income participants to complete a questionnaire that asked them to choose between a small, immediate reward and a large, future award. The results showed that those who were least willing to delay gratification had the lowest credit scores. This suggests a connection between impatience and bad financial outcomes. However, DiSolvo acknowledged that not everyone with financial trouble is bad at managing their short-term desires; other factors like losing a job also affect people's credit scores.



December 4, 2011



 **Jon Maner**, Florida State University, *Huffington Post*, December 6, 2011: It's Flu Season — Watch Your Prejudices.


 **Saul Miller**, University of Kentucky, *Huffington Post*, December 6, 2011: It's Flu Season — Watch Your Prejudices.

Ara Norenzayan, University of British Columbia, *Scientific American*, December 7, 2011: The WEIRD Evolution of Human Psychology.

Diane Poulin-Dubois, Concordia University, *ABC Science*, December 7, 2011, Babies Learn Who to Trust at Early Age.

 **Gabriel Radvansky**, University of Notre Dame, *Scientific American*, December 2, 2011: Doorway to Blame for Room Amnesia.


Paul Rozin, University of Pennsylvania, *Scientific American*, December 2, 2011: Why Do Some Like It Hot?

 **Andrea Tamplin**, University of Notre Dame, *Scientific American*, December 2, 2011: Doorway to Blame for Room Amnesia.

Kit Yarrow, Golden Gate University, *ABC News*, December 2, 2011: Subway Ups Ante in Fast Food Dollar Menu War.

More online at

www.psychologicalscience.org/membersinthenews

 Coverage of research from an APS journal

 Podcast included in coverage

APS Employment Network

www.psychologicalscience.org/jobs

Featured Listing

Purdue University-Calumet

Psychology

Department Head

The Department of Behavioral Sciences at Purdue University Calumet is seeking to fill the position of Head of the Department. This 12-month position begins July 1, 2012. Behavioral Sciences is a large multi-disciplinary department encompassing undergraduate programs in psychology, sociology, human development and family studies, and early childhood development. Two Master's degree programs in marriage and family therapy and human development and family studies are also offered. The department administers the Riley Child Center, the Institute for Social and Policy Research and the Couple and Family Therapy Center (clinic). There are 20 full-time faculty members, and over 800 students in the various degree programs offered by the department. We are searching for an individual with considerable experience as a teacher and a successful track record as an administrator. Scholarly accomplishments must qualify the individual for appointment to the rank of Professor with tenure. Preference will be given to candidates with a diverse background in the social sciences. A doctoral degree in psychology, sociology, human development and family studies, or a related field is required. Review of applications, including a statement of the applicant's philosophy of academic administration, a vita, and the names of four references, will begin immediately and continue until the position is filled. Applications should be sent as follows: Purdue University Calumet Attn: LASS Dean's Office 2200 169th Street Hammond, IN 46323 lassdean2@purduecal.edu

For more school information, please visit <http://webs.purduecal.edu/lass/>. Purdue University Calumet is an equal opportunity/equal access/affirmative action employer fully committed to achieving a diverse workforce. **IN01**

The APS Employment Network is your connection to the best jobs in psychological science. Employers from colleges and universities, government, and the private sector use the APS Employment Network to recruit candidates like you. And there is more to the APS Employment Network than these pages. Employers are increasingly relying on web-only listings and the APS Employment Network is on the leading edge of that trend. Visit www.psychologicalscience.org/jobs for additional job postings.

observerads@psychologicalscience.org • 1.202.293.9300 • 1.202.293.9350 (fax)

SUBJECT AREA INDEX

Abnormal	Department Chair	Industrial/Organizational	Research Methods
OH01, PA01	IN01	MD01, OH01	CA01, NY01
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Behavioral	Developmental	Judgment and Decision Making	Social
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IL01	PA03	OR01	MI01
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Cognitive	Family Studies	Neuroscience	Sociology
IN01, MI01, NY02	IN01	NY02	IN01
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Counseling	Human Factors	Quantitative	Testing and Assessment
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CALIFORNIA

University of California, Davis

Human & Community Development Dept

Assistant Professor

The Department of Human and Community Development at the University of California, Davis, invites applications for an academic year (9 mos) tenure-track faculty position at the assistant professor level with expertise in quantitative methods and a substantive research agenda studying children and/or youth development. This position also includes the expectation that the appointee will conduct mission-oriented research and outreach of relevance to the California Agricultural Experiment Station. Applicants should have expertise and interest in applied research methods and data analysis areas of particular relevance to child, family and community research, such as but not limited to the use of longitudinal methods and assessment of change, multi-level modeling, and measurement theory. Candidates must hold a doctoral degree or equivalent in Human Development, Psychology, or related field. More information is available at: <https://recruitments.ucdavis.edu/>. To ensure full consideration, applications should be received by, January 10, 2012. For more information please contact Lisa Miller, Search Committee Chair, lmismiller@ucdavis.edu. UC Davis is an affirmative action/equal employment opportunity employer and is dedicated to recruiting a diverse faculty community. We welcome all qualified applicants to apply, including women, minorities, veterans, and individuals with disabilities. **CA01**

DISTRICT OF COLUMBIA

Gallaudet University

Psychology

Faculty Assistant or Associate Professor

The Psychology Department at Gallaudet University has a clinical psychology faculty position opening. The position description and application information can be found at <http://jobs.gallaudet.edu/>. For additional information about this position, contact Dr. Patrick Brice, Clinical Psychology Program Director at Patrick.Brice@Gallaudet.edu. **DC01**

ILLINOIS

Knox College

Psychology

Assistant Professor

The Department of Psychology at Knox College invites applications for a tenure-track appointment as assistant professor in **Health Psychology/Behavioral Medicine** beginning September 2012. Applicants should have a Ph.D. or be very near completion of the degree at the time of appointment. A commitment to quality undergraduate teaching coupled with a desire to maintain an active research program is essential. The successful candidate will teach classes in health psychology/behavioral medicine, upper and lower level classes in her/his specialty, statistics and research methods, and introduction to psychology, as well as supervise student research projects. We welcome any type of research sub-specialty that applies psychology to physical health and/or the practice of medicine. The psychology department has a human psychophysiological laboratory, excellent small-animal research facilities, and an observational lab for clinical/developmental work. The department offers a collegial atmosphere and is strongly committed to collaborative student-faculty research, with many of our students regularly being accepted at top graduate programs in psychology and related fields. Please see our website (<http://departments.knox.edu/psychdept/>) for further information. The salary for the position is competitive and start-up funds will be available. Review of applications will begin after January 15th and the search will continue until the position is filled. Send curriculum vitae, statement on teaching, no more than three reprints, and three letters of reference to: Frank McAndrew, Department of Psychology, Knox College, Galesburg, IL 61401-4999. Founded in 1837, Knox is an

independent, residential, co-educational four-year liberal arts college, offering the B.A. degree in 39 majors and 46 minors and enrolling 1400 students from 47 states and 48 countries. In keeping with its long-standing commitment to equal rights, Knox College particularly welcomes applications from women and members of other under-represented groups. **IL01**

INDIANA

Purdue University Calumet

Behavioral Sciences

Department Head

The Department of Behavioral Sciences at Purdue University Calumet is seeking to fill the position of Head of the Department. This 12-month position begins July 1, 2012. Behavioral Sciences is a large multi-disciplinary department encompassing undergraduate programs in psychology, sociology, human development and family studies, and early childhood development. Two Master's degree programs in marriage and family therapy and human development and family studies are also offered. The department administers the Riley Child Center, the Institute for Social and Policy Research and the Couple and Family Therapy Center (clinic). There are 20 full-time faculty members, and over 800 students in the various degree programs offered by the department. We are searching for an individual with considerable experience as a teacher and a successful track record as an administrator. Scholarly accomplishments must qualify the individual for appointment to the rank of Professor with tenure. Preference will be given to candidates with a diverse background in the social sciences. A doctoral degree in psychology, sociology, human development and family studies, or a related field is required. Review of applications, including a statement of the applicant's philosophy of academic administration, a vita, and the names of four references, will begin immediately and continue until the position is filled. Applications should be sent as follows: Purdue University Calumet Attn: LASS Dean's Office 2200 169th Street Hammond, IN 46323 lassdean2@purduecal.edu

For more school information, please visit <http://webs.purduecal.edu/las/>. Purdue University Calumet is an equal opportunity/equal access/affirmative action employer fully committed to achieving a diverse workforce. **IN01**

MARYLAND

University of Maryland, College Park

Psychology

Assistant Professor

The Psychology Department at the University of Maryland, College Park invites applications for a tenure-track faculty Assistant Professor with research and teaching interests in modeling and statistics as well as organizational sciences (pending availability of funding). Applicants must have a doctorate degree and should have developed, or demonstrate the potential to develop, an outstanding research program and a record of extramural funding. A strong commitment to teaching and mentorship at both the undergraduate and graduate levels is expected. Salary is highly competitive, research conditions are excellent, and there are extensive opportunities for interdisciplinary collaboration on campus and at universities and federal laboratories in the Washington DC metropolitan area. The University of Maryland, College Park, actively subscribes to a policy of equal employment opportunity, and will not discriminate against any employee or applicant because of race, age, sex, color, sexual orientation, physical or mental disability, religion, ancestry or national origin, marital status, genetic information, or political affiliation. Minorities and women are encouraged to apply. Applicants should apply electronically to <https://jobs.umd.edu>. For best consideration, applications should be complete by January 15, 2012. Inquiries can be addressed to Julia Coldren-Walker, Coordinator of the Quant/Org Psychology Search Committee at jcoldren@umd.edu **MD01**

MICHIGAN

Eastern Michigan University

Psychology

Assistant Professor

Tenure-track position beginning Fall 2012 for Ph.D. with specialty in social, cognitive, or a related area of psychology. Special consideration will be given to candidates with any of the following areas of expertise: social cognition, cognitive processes, research methodology, and advanced statistical procedures. The Psychology Department has masters programs in Experimental, Clinical, and Clinical-Behavioral Psychology, an APA-accredited Clinical Psychology Ph.D. program, and approximately 850 undergraduate majors. The successful applicant will play a major role in both the graduate and undergraduate programs by: teaching a Cognition and Affect course, as well as other courses such as Social Psychology, Cognitive Processes, Experimental Design, and/or Statistics; establishing a successful research program that can attract extramural funding; and mentoring graduate and undergraduate students in research. Screening to begin on or about December 15 and continue until finalists are selected. EMU enrolls approximately 22,000 students and offers an outstanding benefits package and a collegial work environment. Faculty have access to research assistance and institutional support. The department will move to a new science facility this summer. The EMU campus is located in the Ypsilanti/Ann Arbor community, five miles from downtown Ann Arbor and 35 miles west of Detroit, MI and Windsor, Ontario. All applications must be made online at <https://www.emujobs.com> – Posting # FA1208E. Application materials should include a letter of application, Curriculum Vita, and the names of three references. Letters of reference should be available upon request. Eastern Michigan University is an Equal Opportunity/Affirmative Action Employer that is strongly committed to achieving excellence through cultural diversity. **MI01**

Adrian College

Psychology

Assistant Professor

The Department of Psychology at Adrian College invites applications for a tenure-track Assistant Professor to begin Fall 2012. The applicant must be able to teach Social Psychology, General Psychology, and Research Methods. Willingness to teach either Industrial/Organizational or Psychology of Gender would be of added benefit. The position also involves engaging students in research, developing courses in your area of interest, academic advising, and college service. A Ph.D. is preferred, but ABD applicants will also be considered. Prior teaching experience is highly desirable. Send letter of interest, curriculum vitae, teaching portfolio (statement of teaching philosophy and interests, syllabi, and teaching evaluations), and three letters of reference to psychologysearch@adrian.edu. Applications will be reviewed as they are received. The application deadline is February 1, 2012. Adrian College is an Equal Employment Opportunity Employer and women and minorities are encouraged to apply. If offered a position, finalist must furnish proof of U.S. citizenship or proof of eligibility to work in the U.S. within 30 days of commencing employment. Adrian College was established in 1859 and is a private, co-educational liberal arts college of about 1700 students, committed to creating a student-centered learning environment with high standards academically, professionally, and personally. Listed as a top 25 Best Baccalaureate College in the Midwest by US News and World Report, Adrian College is also a **MI02**



Instructor of Psychology

Saginaw Valley State University invites applicants for a one-year temporary position starting Fall 2012. Applicants should have the ability to teach undergraduate courses in introductory psychology, personality and abnormal psychology. For complete list of requirements, further information, and to apply for this position, please visit www.jobs.svsu.edu. Applicants must apply on-line.

SVSU is an EO/AA employer.



MI03

complete details on this position and to apply, please visit this website: <https://unmjobs.unm.edu>, posting #0813325. The University of New Mexico is an Equal Opportunity/Affirmative Action employer and educator; women and minorities are strongly encouraged to apply. NM01

MINNESOTA

University of Minnesota Development

Applications are invited for two, 2-year traineeships. Specialized training is available in multi-level (genetic, neurobiological, behavioral and experiential) basic, translational, and clinical research in the development of cognitive and emotional processes that are dysregulated in mental disorders; longitudinal research that charts the emergence and change in emotional and behavioral problems of children who are at high risk of developing mental disorders in order to facilitate identification, intervention and treatment; and developing and testing better preventive interventions for children at high risk for developing affective and conduct disorders. Preference is given to applicants trained in psychopathology who need additional training in psychobiology/neuroscience, or the reverse. Qualifications include training and experience in behavioral sciences, strength in research methods, and promise as research scholars. Starting date is expected to be August 27, 2012. The NIMH stipend is based on number of years since award of the Ph.D. Doctoral degree must be completed by time of appointment. Applicant must be US citizen or permanent resident. Submit curriculum vita, statement of research interests, graduate transcripts, GRE scores, three letters of reference, and samples of published and unpublished theoretical and empirical work to: Dr. Dante Cicchetti, Postdoctoral Training Program, Institute of Child Development, 51 East River Road, Minneapolis, MN 55455-0345. Application review begins 3/1/12. Position open until filled. Equal Opportunity/Affirmative Action employer, compliant with the Americans with Disabilities Act. For additional information, please see: <http://cehd.umn.edu/ICD/> or contact Dante Cicchetti at cicchett@umn.edu. MN01

Institute of Child Postdoctoral Traineeship

NEW MEXICO

University of New Mexico Psychology Assistant Professor

The Department of Psychology at The University of New Mexico invites applications at the rank of Assistant Professor in Health Psychology for a full-time, probationary appointment leading to a tenure decision. For

NEW YORK

Marist College

The School of Social and Behavioral Sciences at Marist College, located in the historic Hudson River Valley area of NY, invites applications for the tenure track position of Assistant Professor of Psychology to begin in the fall of 2012. Candidates should hold a doctorate in Psychology. College level teaching experience is preferred and competence in the use of instructional technology is expected. Candidates may be asked to teach at both the undergraduate and graduate levels, including teaching research methods and statistics. We are considering a variety of specific areas of expertise, such as: Social, Personality, or Industrial/Organizational psychologists with active research in areas such as social media; School psychologists with experience with assessment of disabilities and expertise in measurement and evaluation; and licensed Counseling psychologists with supervisory experience. Marist College is a highly selective, independent, liberal arts institution situated on a 180-acre campus overlooking the Hudson River. The College enrolls 4,200 traditional undergraduate, 850 graduate students and 750 continuing education students. Marist has been recognized for excellence by U.S. News & World Report, The Princeton Review, Kiplinger's Personal Finance, Entrepreneur Magazine, and Barron's Best Buys in College Education, and is noted for its leadership in the use of technology to enhance the teaching and learning process. To learn more or to apply, please visit <http://jobs.marist.edu>. Only online applications are accepted. Marist College is strongly committed to the principle of diversity and is especially interested in receiving applications from members of ethnic and racial minority groups, women, persons with disabilities, and persons from other under-represented groups.

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER NY 01

Psychology

Assistant Professor

Hofstra University

Psychology

Assistant Professor

Hofstra University is offering an anticipated tenure-track position in the Department of Psychology, to begin in the Fall semester of 2012. Applicants should have a research focus in one or more of the following areas: sensation and perception, human factors psychology, judgment and decision-making. Preference will be given to those who are proficient in the methods of neuroscience. Research collaborations with the new Hofstra North Shore-LIJ School of Medicine will be encouraged, with possible shared access available to a GE 3-T MRI equipped for functional imaging for a candidate technically competent in its use. A technically qualified candidate may also have shared access to an Eyelink 1000 eye-tracker. The successful candidate will be expected to teach 18 hours a year (2 to 3 courses a semester) primarily in an undergraduate program whose basic mission is to train students in the scientific foundations of psychology. He or she will be asked to teach a subset of the following undergraduate courses: Sensation and Perception, Cognition, Research Methods, Statistics, Behavioral Neuroscience, and Advanced Research Methods in Cognition or Biopsychology. Psychology faculty also often teach undergraduate courses in the Hofstra Honors College or First Year Connections programs, which offer small classes to promote student retention and instructional innovation.

Opportunities may occasionally arise to teach graduate courses within the candidate's field of interest. Hofstra's Psychology Department also administers the following programs: a Ph.D. Program in Clinical Psychology, a PsyD. Program in School-Community Psychology, and a Ph.D. Program in Applied Organizational Psychology. Please forward statements of research and teaching interests, evidence of teaching competence, sample publications, and 3 letters of recommendation to Dr. Charles F. Levinthal, Chair, Department of Psychology, 135 Hofstra University,

Hempstead NY 11549 by January 6, 2012. Applications will be accepted until the position is filled, but a decision concerning initial interviews is anticipated by February 2012. Hofstra University is an equal opportunity employer, committed to fostering diversity in its faculty, administrative staff and student body, and encourages applications from the entire spectrum of a diverse community. **NY02**

OHIO

Ohio University

Psychology

Instructional Assistant Professor

The Department of Psychology at Ohio University invites applications for an **instructional assistant professor** to teach 3 courses each semester, including one 400-student section of introductory psychology. This is a permanent, nine-month, non-tenure track position beginning in August 2012. Applicants should have a PhD in psychology by the start of the appointment. Area of specialization is open, but the candidate should be able to contribute to the undergraduate teaching needs of the department. An online quick application must be submitted at www.ohiou.edu/universityjobs.com/postings/1658; along with a curriculum vitae, a brief statement of teaching interests, and evidence of teaching effectiveness. Applicants should also have three letters of recommendation sent on their behalf. Any materials that cannot be attached as part of the online application should be sent to: Bruce W. Carlson, Ph.D., Chair; Instructional Assistant Professor Search Committee; Department of Psychology, Ohio University, Athens, OH 45701-2979. The search committee will begin to review applications on February 20, 2012 and will continue to accept applications until the position is filled. We strongly encourage applications from minority and women candidates. Ohio University is an Equal Opportunity/Affirmative Action Employer. We seek a candidate with a commitment in working effectively with students, faculty and staff from diverse backgrounds. **OH01**

OREGON

Reed College

Psychology

One-Year Position

The Reed College Psychology Department seeks applicants for a one-year position in **LEARNING** or **COMPARATIVE PSYCHOLOGY**. The selected individual will teach four courses (at least one with an animal lab) during the year. In addition, the person will supervise student research (year-long senior thesis projects). Preference will be given to candidates with a Ph.D., but ABD applicants will be considered. We especially welcome applications from candidates with experience teaching high-quality undergraduates. Review of applications will begin February 1. The Psychology Department is using Interfolio to collect faculty job applications electronically. Through Interfolio, submit a CV, statements of research and teaching interests, three letters of recommendation, and any other materials that will help us assess the candidate's research and teaching experience, addressed to Professor Tim Hackenberg, Search Chair. For more information and application instructions, see <http://www.interfolio.com/apply/3154>. An Equal Opportunity Employer, Reed values diversity and encourages applications from under-represented groups. **OR01**

PENNSYLVANIA

Saint Francis University

Psychology

Assistant Professor

Asst. Professor of Psychology: Saint Francis University invites applications for a tenure track position at the Assistant Professor level to begin Fall 2012. Primary teaching responsibilities include undergraduate abnormal psychology, lifespan development, and introductory psychology. Opportunity to teach in the applicant's specialty area will also become available. The successful candidate will assist the department in developing courses in one of a number of possible areas, including, but not limited to, neuroscience, developmental psychopathology, undergraduate-level clinical-community psychology, industrial/organizational psychology, or human performance (human performance laboratory space and equipment is available for use.) Interest in involving undergraduate psychology majors in ongoing laboratory or community-based research is essential. Applicants should have a strong commitment to excellence in teaching, advising undergraduate majors, and departmental and university governance.

Qualifications include a Ph.D. in Psychology (qualified ABDs will be considered). The Saint Francis University Psychology department has a strong track record in mentoring students for entry into graduate programs and for immediate post-graduate employment. SFU Psychology faculty members also have the opportunity to participate in various other curricular and co-curricular programs, including an interdisciplinary Social Responsibility Minor, an interdisciplinary Neuroscience Minor, campus-based service learning initiatives, and a broad, newly revised general education program. Interested candidates should complete an online application at <http://francis.edu/jobapplication.htm>, then submit a letter of application, resume, transcripts, three current letters of recommendation, and a one-page statement of teaching philosophy to: positions@francis.edu. Alternately, you may send application materials to: Psychology Faculty Search Committee c/o Office of Human Resources Saint Francis University P.O. Box 600, Loretto, PA 15940. The Psychology Search Committee will begin reviewing applications on January 1, 2012. Applications will be accepted until the position is filled. AA/EOE **PA01**



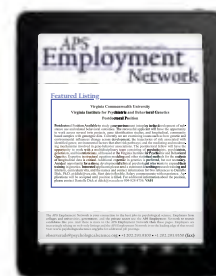
Bad

Flat World



Better

Flat TV



Best

Flat Rate Employment Ads

The new, more convenient flat rate pricing makes finding psychology's best and brightest brains even easier.
www.psychologicalscience.org/jobs

APS
Employment
Network

Penn State-Berks

The Berks College of The Pennsylvania State University, Reading, PA, invites applicants for a full time multi-year faculty position in our Applied Psychology Program effective Fall 2012. Preference will be given to candidates with Ph.D. or Psy.D. in clinical/counseling psychology or related field. We seek an energetic, talented, teacher-scholar with strong teaching skills and service who will teach a 4-4 load in our rigorous internship program, introductory psychology, and special topics as needed. Preference will be given to candidates who are Licensed or eligible for Licensure in PA. The successful candidate will teach undergraduate courses commensurate with his/her professional training including teaching courses in internship, assisting students in securing internships, networking within the community, and providing internship supervision, and advising. Candidates must have a doctoral degree completed by August 2012. Review of applications will commence November 28th and will continue until the position is filled. Applicants should submit application materials as ONE document consisting of a cover letter, curriculum vitae and teaching philosophy, evidence of teaching effectiveness, and letters of support from three references, along with contact information, to Claudia Plato at CIP1@psu.edu. For further information or questions, feel free to contact the search committee chair, Dr. Brenda Russell, at BLR15@psu.edu. We encourage applications from individuals of diverse backgrounds. Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce. **PA02**

Applied Psychology Program**Instructor****University of Pittsburgh**

The Learning Research and Development Center at the University of Pittsburgh is searching to fill one or two faculty-level non-tenure stream research positions in the following areas.

Learning and Development**Research Scientist**

Cognition and the learning of science, technology, engineering, or mathematics. We are interested in individuals whose research examines higher-level student learning in the STEM disciplines including topics such as project-based learning, student learning progressions, the assessment of higher-level thinking and reasoning, the study or design of intelligent tutoring systems, peer instruction, or the learning of STEM in informal settings. Candidates should have a doctoral degree in a relevant area such as science education, mathematics education, engineering education, psychology, or other cognitive and learning science related areas.

Application of statistics/measurement techniques to the design and analysis of large-scale data. We seek individuals who can apply a variety of methodologies (e.g., multilevel and growth models, multivariate analyses, mixed-effects models, cross-classified models, item response theory, structural equation modeling, social network analysis) to the study of teaching and learning in both formal and informal settings. Candidates should have a doctoral degree in statistics, education, psychology or a related area and interest and expertise in applied statistics, including strategies for experimental and quasi-experimental methods (e.g., propensity score matching, instrumental variables, regression discontinuity, etc.). LRDC is an internationally renowned center on the campus of the University of Pittsburgh. Its mission is to promote basic and applied research on learning in its cognitive, neural, social, and organizational aspects and to make research and development links to formal education practice, policy, and out-of-school settings. For both of the above positions, strong preference will be given to candidates with experience or interest in collaborating on multi-disciplinary projects.

Although these research positions are outside of the tenure-stream, successful candidates will become fully participating members of the LRDC scientist community. Additionally, they may be appointed as Research Assistant Professor with an appropriate partnering department (e.g. Psychology, Education). They will receive an initial three-year contract that includes start-up funding for research. Contract renewals beyond the third year depend in part on securing external funding through collaborative or individual grant applications.

Please send a cover letter, CV, research statement, up to 3 papers, and the names and contact information for 3 individuals who can serve as references for you to LRDCsrch@pitt.edu. Candidate review will begin on February 1, 2012 and continue until suitable candidates are identified. For more information please contact either Mary Kay Stein (mkstein@pitt.edu) or Christian Schunn (schunn@pitt.edu), co-chairs of the search committee.

The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer. Women and members of minority groups under-represented in academia are especially encouraged to apply. **PA03**

TEXAS**Studies of First Episode Psychosis**

The First Episode Psychosis Program, UT Southwestern Medical Center at Dallas Department of Psychiatry, is seeking an outstanding clinical investigator who will develop an independent research program conducting cognitive, neuroimaging or neurophysiological studies of individuals experiencing a first episode of psychosis. Academic rank is open and will be determined by the selected candidate's qualifications. The existing first episode research program is designed to support studies of patients before treatment, and to then study effects of antipsychotic drugs on cognitive and neural system function in patients with psychotic disorders.

Candidate must hold a PhD, MD, or equivalent degree. Interested applicants should submit a brief summary of research interest, a CV, and three references to: Dr. John A. Sweeney, Department of Psychiatry, UT Southwestern Medical Center at Dallas, 5323 Harry Hines Blvd., Dallas, TX 75390-9044, John.Sweeney@utsouthwestern.edu.

UT Southwestern Medical Center at Dallas is an Equal Opportunity/Affirmative Action Employer

TX02

UT SOUTHWESTERN MEDICAL CENTER

Patient-Oriented Autism Research

The Autism Center at the UT Southwestern Medical Center at Dallas, Department of Psychiatry, is seeking an outstanding faculty candidate who will develop an independent line of cognitive, neuroimaging or neurophysiological studies of autism. Academic rank is open, with rank determined by the selected candidate's qualifications. The Autism Center is a multi-disciplinary clinical research program with a large clinical service and links to several molecular neuroscience and genetics programs and to the UTSW Advanced Imaging Research Center.

Candidate must hold a PhD, MD, or equivalent. Interested applicants should submit a brief summary of research interest, a CV, and three references to: Dr. John A. Sweeney, The Autism Center, Department of Psychiatry, UT Southwestern Medical Center at Dallas, 5323 Harry Hines Blvd., Dallas, TX 75390-9044, John.Sweeney@utsouthwestern.edu.

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TX01

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ANNOUNCEMENTS

Send items to apsobserver@psychologicalscience.org

MEETINGS

Society for Industrial & Organizational Psychology, Inc. Annual Conference

April 26 – 28, 2012

San Diego, CA

www.siop.org/confpart.aspx

16th International Conference on Cognitive and Neural Systems (ICCNS)

May 30 – June 1, 2012

Boston, MA

<http://cns.bu.edu/cns-meeting/conference.html>

International Behavioral Neuroscience Society 21st Annual Meeting

June 5 – 10, 2012

Kailua-Kona, HI

www.ibnshomepage.org/annualmtg12.htm

International Association for Cross Cultural Psychology 21st International Congress

July 17 – 21, 2012

Stellenbosch, South Africa

www.iaccp2012southafrica.co.za/

30th International Congress of Psychology: Psychology Serving Humanity

July 22 – 27, 2012

Cape Town, South Africa

www.icp2012.com/index.php?bodyhtml=home.html

GRANTS

OppNet Request for Applications for Three-year Research Projects: Basic Research on Decision Making(R01)

OppNet, NIH's Basic Behavioral and Social Science Opportunity Network, released a new RFA for three-year research projects: Basic research on decision making: Cognitive, affective, and developmental perspectives (R01). Letters of intent are due December 18, 2011, and applications are due January 18, 2012.

<http://grants.nih.gov/grants/guide/rfa-files/RFA-MH-12-130.html>

NIA Grants for Social Neuroscience and Neuroeconomics of Aging

The National Institute on Aging (NIA) has announced two funding opportunities for psychological scientists in order to generate interdisciplinary applications "examining social, emotional and economic behaviors of relevance to aging" using an approach that investigates both relevant behaviors

GRANTS (CONT)

and the underlying genetics or neurological processes associated with the behaviors. The application deadline is February 5, 2012, 2013, and 2014.

<http://grants.nih.gov/grants/guide/pa-files/PA-11-337.html>

<http://grants.nih.gov/grants/guide/pa-files/PA-11-336.html>

AWARDS

APA Call for Award Nominations

The Society for General Psychology, Division One of the American Psychological Association, is conducting its Year 2012 awards competition. The nomination deadline is February 15, 2011.

www.apa.org/about/division/div1.aspx

PROGRAMS

New Interdisciplinary PhD Program in Cognitive Science at Tufts University

Tufts University is proud to announce the launch of a new multi- and interdisciplinary joint PhD program in cognitive science. Applications for the inaugural Fall 2012 class are accepted immediately.

<http://cogsci.tufts.edu>

TRAINING

24th National Institute of Mental Health Summer Institute in Cognitive Neuroscience

The 24th NIMH Summer Institute in Cognitive Neuroscience will be held from June 24 – July 7, 2012. This year's topics are "Does Brain Plasticity Account for Everything?" with Jon H. Kaas, and "The Indispensable Role of Episodic Memory in Adaptive Behavior" with Ian Dobbins and Mike Miller.

<http://sicn.cmb.ucdavis.edu/>

Rand Summer Institute

RAND is pleased to announce the 19th annual RAND Summer Institute (RSI). RSI consists of two annual conferences that address critical issues facing our aging population. The Mind-Medical School for Social Scientists will be held on July 9 – 10, and the Demography, Economics, and Epidemiology of Aging conference on July 11 – 12, 2012. Both conferences will convene at the RAND Corporation headquarters in Santa Monica, California. The conferences are sponsored by the National Institute on Aging and the NIH Office of Behavioral and Social Sciences Research.

www.rand.org/labor/aging/rsi.html

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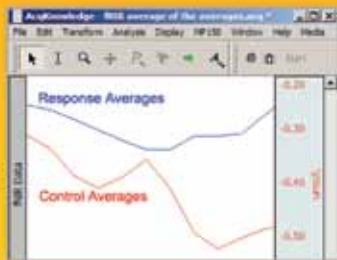
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