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House Defeats Attempt to De-Fund Selected NIH Grants

by Patricia C. Kobar, Public Policy Office

On July 10, 2003, during debate on the appropriations bill to fund the Departments of Labor, Health and Human Services and Education, the House of Representatives narrowly defeated an amendment offered by Rep. Patrick Toomey (R-PA) to defund five NIH grants on sexual behavior. The vote was 210-212.

APA and other behavioral science and public health organizations worked tirelessly to get information out about the amendment and persuade House members to vote no. The APA Public Policy Office sent two electronic action alerts to let psychologists know about the dangerous amendment, and many responded by emailing or calling their members of Congress.

Appropriations LHHS Subcommittee Chairman Ralph Regula (R-OH), Appropriations Committee Chair Rep. Bill Young (R-FL), Rep. Randy Cunningham (R-CA) and Rep. Mike Rogers (R-MI) spoke against the

amendment on the House floor. Ranking minority member David Obey (D-WI) and APA member Rep. Brian Baird (D-WA) both eloquently defended the funded research and the peer review process.



PPO Director of Science Policy Geoff Mumford wrote in a message to psychologists, "It was wonderful to see so many of you take action on this issue and we hope this victory will stimulate you to remain active in the advocacy process when we put out a call for help next time."

Information about the issue, including summaries of the targeted grants and how members of Congress voted, are on the APA Public Policy Office web site at www.apa.org/ppo. ■

NIH Directors Assemble on Capitol Hill

by Geoff Mumford, Director for Science Policy, with pictures by Charles Votaw.

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On May 22, the new Directors of the National Institute of Mental Health (NIMH), the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the National Institute on Drug Abuse (NIDA) received an official welcome on Capitol Hill from Members of Congress and various constituent organizations. With a view of the Capitol in the background, 150 guests enjoyed fine food and conversation before hearing the welcoming remarks from APA CEO Norman Anderson.

The reception was co-sponsored by seventeen organizations, which collectively represent hundreds of



Congressman Patrick Kennedy takes the podium.

thousands of scientists, healthcare providers and patient advocates, and was an official introduction of the new Institute Directors with Members of Congress and their staff. Although Drs. Insel (NIMH) and Li (NIAAA) were officially appointed in September 2002, the time required for their transition from established research careers resulted in their actual debut at the spring round of NIH Advisory Council meetings. Volkow (NIDA), the most recent appointee, assumed her position full-time in mid-April.

Senator Tom Harkin (D-IA), Ranking Member on the Senate Appropriations Subcommittee, which provides NIH funding, shared his thoughts on the important work the new triumvirate would oversee. Senator Harkin's leadership, (along with that of the Subcommittee Chairman, Arlen

Specter, R-PA), caused the NIH budget to double over the past five years, and recently Senator's Harkin and Specter have introduced legislation to triple it. The importance of translational research is a common theme heard on the Hill these days as Congressional champions struggle

to find additional funds for NIH. Senator Harkin used the opportunity to address the need to take research from the "bench to the bedside." While that may be an uphill battle, given new estimates of the federal deficit and changing budgetary priorities, such legislation symbolically sets an important tone in demonstrating support for research.

Congressman Patrick Kennedy, (D-RI), who serves on the corresponding appropriations subcommittee in the House of Representatives, was also on hand to make remarks. Congressman Kennedy, son of Senator Ted Kennedy (D-MA), provided a moving account of how substance abuse and mental health issues had personally affected so many in his extended family. It is perhaps his willingness to expose these vulnerabilities that has given him so much leadership credibility for mental health parity legislation in the House. Like Senator Harkin, Kennedy noted the critical need for research to inform practice in the provision of services to the patient community. Senator Jim Jeffords (I-VT) was also on hand to welcome the new Directors and although his schedule did not permit him time to make formal remarks, he worked his way through the crowd to make sure Insel, Li and Volkow knew that they will enjoy his support during their tenure at NIH.



From left to right: Ting-Kai Li, Norman Anderson, Thomas R. Insel, Nora Volkow, and Raynard S. Kington.

The event also provided an opportunity for each of the new Directors to express a sense of their vision for their respective Institutes. As a preface, Dr. Anderson introduced Raynard Kington, the new Deputy Director of NIH, who has recently undergone his own set of transitions. Anderson, the first Director of the NIH Office of Behavioral and Social Sciences Research, reviewed Kington's ascendance from Directing OBSSR to Acting Director of NIAAA



Senator Harkin with Thomas Insel.

to his current position as second in command of NIH.

Kington then took a few moments to provide some biographical context for each of the new Directors, who in turn, described their plans for managing the Institutes under their charge. At least one common theme emerged, and it was clear to those assembled that all three Directors understand the challenges facing the research community and are geared towards facilitating the entry of new scientists into mental health and substance abuse research careers. ■

EXECUTIVE DIRECTOR'S COLUMN

KURT SALZINGER, Executive Director for Science

Just How Stubborn are Facts?

We often say that a fact is a fact, that we just have to face it and live with it. But just how stubborn are facts when they are not welcome? We all know we often trim, exaggerate, cajole, modify, transform, deny, ignore, embroider, and trample on, facts as we come face to face with them. We often hope that some facts are true only during some parts of the week, only for some people, only on some occasions and in some situations, that we can delay their effect and, of course, we rely on those limitations, real or hoped for. So we overeat, but only on weekends and ignore the speeding limit but only when we are in a hurry.

At the same time, we are inclined to worship certain facts. We consecrate some facts, refuse to believe that they might not hold under all conditions, refuse to consider that there might be measurement errors, hold them to be inalienable rights, and so on.

To protect ourselves from these challenging features of facts, we eschew "facts" in the science of psychology. We talk about data that has all the safety precautions built into it. We ascertain the reliability and we gauge the validity of our measures. We can and do specify the amount of error (we always expect error) in our data and thus we are able to speak about confidence intervals and probability that chance cannot explain our results as well as our hypotheses, and we have effect sizes that tell us what the shooting's all about.

When somebody's findings contradict our data or question our favorite theory, we ask whether the method employed



was appropriate or the inference justified. We even go so far as to do another experiment but our arguments stay well within the halls of academe or in our research labs. Occasionally, disagreements take the form of articles or letters to the editor but they do, for the most part, remain civil, and they typically afford the target the possibility of responding to the comment. Science is set up in such a way that reasonable feedback can be counted on.

A different set of rules comes into play when research has implications for the real world, however, particularly when the real world finds the research results unwelcome. When research suggests that a profession's procedures are in error or that cherished theoretical assumptions are wrong, controversy can be heated and prolonged, directed not just at the facts, but at the researchers.

One relatively mild example is the controversy about intrinsic vs. extrinsic reinforcement, and its implications for practice in schools and other institutions. Some researchers have contended that the addition of extrinsic reinforcement to behavior that produces automatic (intrinsic) reinforcement eventually reduces the probability of

the emission of that behavior. Other researchers have found no such interference from extrinsic reinforcement, only the usual increase in response rate. This research has implications for the real world, particularly when a teacher applies the reinforcement in the process of educating children, or when a manager applies it to motivate workers. Opposing articles have appeared both in educational and organizational journals. Somewhat acrimonious, the controversy, nevertheless, has been contained.

The same cannot be said about the controversy around the subject of the malleability of memory, especially for traumatic events. We have known for many years that an interviewer can influence what people say by asking questions in a particular way (e.g., Hadley Cantril with respect to opinion statements), and by reinforcing particular response classes (e.g., William S. Verplanck with opinion statements, and myself with Stephanie Portnoy and Richard S. Feldman with self-referred affect statements). Yet the application of such knowledge to memory for early traumatic events and for eyewitness testimony has elicited passions not known before in psychology.

This year, the Committee on Scientific Awards of the APA selected two memory researchers, Elizabeth F. Loftus and Stephen J. Ceci to receive the 2003 Award for Distinguished Scientific Applications of Psychology. Loftus worked mainly with adults and Ceci mainly with children, showing how both kinds of subjects could be influenced to recall events, not

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only in distorted ways, but also when these events never, in fact, occurred. This work has been controversial and has elicited comment and disagreement not only in our journals but also in the courts, and sometimes on the street. It is with great pride, therefore, that I call your attention to this award. It shows that the APA has respect for stubborn facts when they are represented in the form of data obtained in elegant experiments. And, of course, this award is nestled among others that we are giving this year for outstanding work in the science of psychology (See the full list on this following page). Let us celebrate the excellence of all our colleagues' work. ■

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Scientific Award Recipients Named

The Committee on Scientific Awards selected the following individuals to receive the 2003 APA scientific awards in recognition of their outstanding theoretical or empirical contributions to basic or applied research in psychology.

The Distinguished Scientific Contribution Award was granted to:

- **Lila R. Gleitman**, University of Pennsylvania
- **Bruce S. McEwen**, Rockefeller University
- **Claude M. Steele**, Stanford University

The Distinguished Scientific Award for Applications of Psychology was given to:

- **Stephen J. Ceci**, Cornell University, and
- **Elizabeth F. Loftus**, University of California at Irvine

The recipients of the Distinguished Scientific Award for Early Career Contribution to Psychology were:

- **Isabel Gauthier**, Vanderbilt University, in the area of

behavioral/cognitive neuroscience

- **Steven J. Heine**, University of British Columbia and **Sandra L. Murray**, SUNY at Buffalo, a shared award in the area of social psychology
- **Nancy M. Petry**, University of Connecticut School of Medicine, in the area of applied research

- **Richard W. Robins**, University of California at Davis, in the area of individual differences
- **Daniel J. Simons**, University of Illinois, in the area of perception/motor performance

The 2003 winners will be honored at the APA Annual Convention in Toronto, Ontario, Canada, August 7-10, 2003. ■

A Message from Merry Bullock, Associate Executive Director for Science

Who wouldn't want free access to research articles – that is the premise behind a bill recently introduced in the House by Representative Martin Sabo of Minnesota. The bill, called the “Public Access to Science Act,”



would prohibit copyright protection for any work “resulting from scientific research substantially funded by the Federal Government.” The stated goal of the bill is to make the results from scientific research freely available to “the scientific community, the private sector, physicians, and the public.”

The science community has been beginning to respond to this bill.

Although most would agree, in principle, with the concept of making scientific results broadly accessible, there are concerns about such issues as siphoning off research dollars to pay for publication; not actually improving the public's access; damaging the infrastructure that supports peer review and top-notch editors; and worries about creating a system whereby funding and publication would be intimately tied together.

APA Science, Public Policy, and Office of Communications staff are monitoring progress on the bill, and holding discussions with other societies that have significant publishing programs as well as commercial publishers about the implications and impact of the legislation but we need your input! Please let us know at science@apa.org, how such legislation would affect your research, your publications, and your teaching. ■

Meritorious Research Service Commendation Recipients Announced

The Meritorious Research Service Commendation is now in its second year. This award, with its uncharacteristically long name, was developed by the Board of Scientific Affairs (BSA) to recognize those unsung but outstanding psychologists in the federal government who advance the discipline by their programmatic activities – typically by fostering the research of others. BSA members developed this commendation because they felt there needed to be a clear mechanism for highlighting the important contributions to the discipline that these psychologists make by identifying funding streams, developing new directions, and fostering research opportunities.

Psychologists in federal funding agencies can play a crucial role in the development of behavioral science — in running the programs that fund psychological scientists, in working with the science community to identify new opportunities and directions and to turn these into programs and funding opportunities, in serving as a catalyst for promoting cutting edge work, and in shepherding behavioral research within their institutions.

The recipients for 2003, selected from nominations solicited through PSA, the *Monitor* and Division newsletters and listservs, are:

Steven J. Breckler (National Science Foundation—NSF)
Breckler is Program Director for Social Psychology at the National Science Foundation. He is being honored for his role in improving the stature of psychology at the National Science Foundation, increasing resources and respect for the field, and facilitating the development of new directions within the field.

“The job I do is not the kind for which research scientists are trained, so it is very gratifying to be recognized for doing a job that does not really fit the

usual mold.” Breckler stated. For the next few years, Breckler plans to devote most of his attention to what he calls, “NSF-wide priority areas,” which cover the Science of Learning Centers and Human and Social Dynamics. One of his goals is to better connect Social Psychology with other fields of science.

Edgar M. Johnson (Army Research Institute—ARI)

Johnson recently retired from serving as the Director of the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) and Chief Psychologist of the U.S. Army. He is being recognized for his leadership within ARI and for developing the Consortium Research Fellows Program, which provides professional development and financial support to graduate students who are completing their degrees.

Peter G. Kaufmann (National Heart, Lung, and Blood Institute—NHLBI)
Kaufmann is Chief of the Behavioral Medicine Branch of the NHLBI. He is being recognized for increasing the visibility of health psychology and behavioral medicine research at NHLBI, in particular, and at NIH, in general.

Lisa S. Onken (National Institute of Drug Abuse—NIDA)

Onken is Associate Director for Behavioral Treatment Research and Chief of the Behavioral Treatment Development Branch at NIDA. She is being recognized for developing NIDA’s behavioral therapies development research program and for her efforts in bridging basic and clinical research findings.

“I am honored to be recognized by the APA for developing NIDA’s Behavioral Therapies Development Program and for my efforts to bridge basic and clinical research,” said Onken. “Over the past four decades, behavioral treatments have been developed that have had great impact upon many human problems.

With strategic research aimed at not only developing better behavioral treatments, but also aimed at understanding how and why treatments work and how they can be transported and adapted to community settings, there is enormous potential for behavioral treatments to impact positively on the public health. I plan to continue to promote a comprehensive program of behavioral treatment research that fosters creativity and innovation and demands scientific rigor, but does not lose sight of its ultimate goal: to ease human suffering.”

Delores Parron (National Institutes of Health—NIH)

Parron is Scientific Advisor for Capacity Development in the Office of the Director of the National Institutes of Health. Some of her previous positions included Associate Director for Special Populations at the National Institute of Mental Health and Associate Director of the Division of Mental Health and Behavioral Medicine at the Institute of Medicine. She is being cited for her knowledge, research strategies, and career-long dedication to the development of new projects addressing ethnic minority groups and to efforts to develop funding opportunities for ethnic minority researchers.

“One of the reasons I stayed at NIMH for seventeen years was the pleasure of watching so many smart, creative people move along their chosen career path, producing superb work, gaining their academic promotions, receiving recognition for advancing the discipline of Psychology and helping others to understand the human condition a bit better,” Parron stated. “This Commendation is, for me, ‘icing on the cake’.”

The recipients of the 2003 citations will be honored at a luncheon at the Spring 2004 meeting of BSA. ■

Senate Encourages Behavioral Research at NIH

by Patricia C. Kobor, Public Policy Office

Each year both the House and Senate Appropriations Committees issue reports that accompany their versions of the coming year's spending bills. The Public Policy Office works with those committees to suggest language, or topics for language, on behavioral research at various NIH institutes. Although the suggestions in the reports do not carry the force of law, they are closely studied by administrators at NIH and demonstrate the Committee's interest in and support of various areas of research. For that reason we read through the massive report as soon as we get it to see which of our suggestions made it into print.

Here is a sample of some APA-inspired language from Senate report 108-81, accompanying the bill to fund the US Departments of Labor, Health and Human Services, Education and Related Agencies for Fiscal Year 2004.

National Heart, Lung, and Blood Institute (NHLBI)

Basic Behavioral Research. The NHLBI is commended for its support of basic research with animal models to better understand the effects of various diets, exercise, and stress on the heart and circulatory system, as well as work on gene-environment interactions. The NHLBI is encouraged to continue to work cooperatively with other institutes and the Office of Behavioral and Social Sciences Research on efforts to add to fundamental knowledge in these areas.

National Institute of Diabetes & Digestive & Kidney Diseases (NIDDK)

Behavioral Research. Diabetics who have co-occurring depressive symptoms have less success managing their illnesses. The Committee also notes that NIDDK's recent clinical trial, the Diabetes Prevention Program, demonstrated that diet and exercise could be more successful than medication alone in preventing the development of diabetes in groups who faced a high risk of diabetes. The NIDDK is strongly encouraged to build

upon its investment in behavioral research, particularly in areas that would add to the science base on the maintenance of positive behavior change.

National Institute of Neurological Disorders and Stroke (NINDS)

Basic Behavioral and Treatment Research. The Committee applauds the NINDS for its broad support of both basic and clinical behavioral research and training in such areas as the neural bases of cognition and behavior, including sensation/perception, attention, learning and memory, language, and other higher cognitive processes. The Committee notes the importance of integrating the research across multiple levels, including molecular, genetic and behavioral. The Committee encourages the NINDS to continue its support of imaging technologies to study the neural bases of cognitive processes in real time, including studies of language, face recognition, and decision-making ability. The Committee appreciates that understanding the deleterious effects of neurological disorders on cognition and behavior will allow for the design of more effective treatment and rehabilitation strategies including behavioral interventions. The Committee encourages the NINDS to continue supporting research on the cognitive and behavioral deficits associated with epilepsy, autism, stroke, Parkinson's disease, traumatic brain injury, migraine, and neurofibromatosis.

The National Institute of Child Health and Human Development (NICHD)

Behavioral Science. The Committee supports the NICHD's efforts to determine the biological, behavioral, and social factors that affect child development, particularly the important role of family structure and fathers in child development. The Committee is particularly concerned about rising rates of childhood obesity and supports continued initiatives to promote healthy

behaviors in children and adolescents and prevent health risk behaviors.

National Institute on Alcohol Abuse and Alcoholism (NIAAA)

Behavioral Genetics of Alcoholism. Genes and the proteins they produce are key players in the biochemical and molecular processes that contribute to development of alcoholism. Identifying variations in them that predispose people to alcohol-use disorders will contribute essential information to design of prevention and treatment strategies. Because only half of the risk of alcoholism appears to be genetic, it is also critical to examine gene-environment interactions. The Committee recognizes the value of large longitudinal, multidisciplinary studies used to identify these risk factors and determine how they interact with each other to result in alcohol-use disorders. The Committee recommends that NIAAA continue its important twin and family genetic studies, broad epidemiological studies, and observational studies that might help elucidate the relationship between genetic and environmental factors particularly in cultural and ethnic minorities.

Behavioral Treatments. Behavioral, nonpharmacological therapies currently are the most widely used method of treating alcohol dependence and alcohol abuse. The Committee applauds NIAAA's efforts to advance the effectiveness of such therapies by examining approaches to improving clinicians' abilities to engage and retain adults and adolescents in treatment. The Committee recommends that NIAAA expand research to understand the mechanisms of action of successful behavioral therapies as well as behavioral therapies for patients with co-occurring substance abuse and psychiatric disorders. Further, the Committee recognizes the value of

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NIAAA's substantial medications development program and research to evaluate the use of new medications in combination with behavioral therapies to sustain recovery.

National Institute on Drug Abuse (NIDA)

Stress. The Committee encourages NIDA to continue to explore the effects of stress and its relationship on the initiation of drug use and the role that stress plays in triggering relapse to drug use. Such research may lead to development of more effective prevention and treatment, particularly for those who suffer from mental disorders as well as substance abuse.

Homeless Populations and Drug Abuse. The Committee recognizes that homeless adults and youth have disproportionate rates of drug use disorders. The Committee encourages NIDA to accelerate more research on homeless populations, especially those that suffer from alcohol, drug abuse and/or mental disorders, and their ability to access services and treatment.

The National Institute of Mental Health (NIMH)

Psychological Impacts of Terrorism. The Committee supports NIMH research related to the psychological impact of both acute and chronic exposure to threats of violence, including terrorism, bioterrorism, and war, with particular emphasis on vulnerable populations, such as trauma survivors, children and older adults. The Committee encourages NIMH to expand its research portfolio to include research related to factors that promote detection or prediction, prevention, and post-exposure recovery and resilience.

Office of Behavioral and Social Sciences Research

Education and Health. The Committee is interested in the trans-NIH request for applications, initiated by the Office of Behavioral and Social Sciences Research (OBSSR), to better understand how education contributes to health. Better scientific understanding of the causal pathways between education and health could lead to new or improved prevention and therapeutic intervention

strategies for important health problems. In some but not all studies of clinical treatments, those with lower levels of educational attainment demonstrated poorer outcomes. The Committee looks forward to hearing about new research directions in this important arena.

APA's Public Policy Office and our coalition partners will continue to advocate for healthy funding increases for NIH. Both the House and Senate bills anticipate increases of less than 4 percent. APA is advocating a 10 percent increase for Fiscal Year 2004 to provide a softer landing as NIH returns to what former director Harold Varmus referred to as "steady state." After five exciting years of 15 percent increases, NIH has grown to a size of \$27 billion and has a large amount of money tied up in continuing grants. Our goal is to ensure that NIH is still able to fund a healthy number of new grants and new trainees each year. Watch for the next issues of SPIN for more information on research funding at NIH, NSF, the Department of Defense, Veterans Administration, and more. ■

APA Member Participates in DoD Research Lobby Event

by Heather Kelly, Public Policy Office

The Coalition for National Security Research (CNSR) holds a Lobby Day each year, during which the science community heads to Capitol Hill to advocate for the research programs sponsored by the Department of Defense (DoD). This year the blitz lobbying events and visits were spread over two days in early June. Over 170 members of Congress, their staff, DoD personnel and scientists enjoyed an evening reception, and APA member Gerald Krueger joined PPO staffer Heather Kelly at a breakfast featuring Sen. Pat Roberts (R-KS),



APA member Gerald Krueger with Jim Kadtko of Sen. John Warner's office

Chairman of the Senate Select Committee on Intelligence and member of the Senate Armed Services Committee.

Sen. Roberts spoke forcefully about the need for and his commitment to a significant investment in science and technology (including psychological research) within DoD. CNSR member organizations, which include universities and science associations, made more than 30 visits to congressional offices and continue to work with staff in those offices as the defense appropriations bills start to move through committees in the House and Senate. ■

Focus is on the Workplace at NICHD Conference

by Dianne Brown Maranto, Director for Psychology in the Workplace

Social science researchers from a variety of disciplines gathered in Washington, DC June 16-18 to discuss major research findings pertaining to work/family balance. The conference was sponsored by the National Institute of Child Health and Human Development (NICHD), the Office of Behavioral and Social Sciences Research (OBSSR), the Alfred P. Sloan Foundation, the University of Maryland Population Research Center, the National Institute for Occupational Safety and Health, and the Child Care Bureau of the Department of Health and Human Services. It represents the first step in an NICHD initiative to develop a research agenda on work and health (see last issue of PSA for full article).

Psychologists, sociologists, economists, and demographers addressed the changing demographics of the workforce, shifts in workplace demands, the impact on family health and well-being, and institutional and community alterations that may better support working families. The workforce/workplace mismatch was well noted by presenters. Despite the fact that a large part of society has changed from a single earner household with a stay-at-home mother to dual career households and an increasing numbers of single parent households, the workplace continues to make the same 8-hour day, 40-hour week, 52 weeks a year demand on employees. Keeping up with after school programs, extra-curricular activities, caring for younger children or aging, ill relatives has become nearly impossible for many families.

Noted repeatedly at the conference was how the impact of juggling work and family life tends to be greater on women. Research shows that women still carry most of the burden for household tasks and childcare, even when they are working full time. Some studies suggest that women who have

children and work full time tend to cut back on their sleep, yet do not reduce time caring for children and the household. And, it is often women who bear the cost of flexibility in terms of losing ground in career ladders when opting for part time arrangements. However, women who work outside the



home also tend to be happier and healthier than those who do not.

Opportunity for family time is obviously affected by parental working hours. Researchers find that time spent together as a family for working and middle-class two parent families is relatively scarce—an average of four hours per week. Most of this time is spent eating meals and watching television. Still, sharing meals as a family even three to four times a week seems to have a positive impact on children. Families with such routines and rituals tend to have children who do well in school and report less anxiety. Other researchers note that family or leisure time has become filled with highly structured activities such as athletic games, exercise classes, and swimming and piano lessons, adding to scheduling and commuting demands and reducing leisure time.

Diane Halpern, APA President-Elect, addressed work and its connections with stress and health. “Some employers perceive the stress complaints of employees as a mere nuisance, but the large literature linking stress to physical health shows that it can be severe, costly and life-threatening. Research shows that stress is related to the tasks required by one’s job and to the control workers have over how they do their job. Known as the *Job Demand Control Model*, this research approach has linked job stress to cardiovascular disease.”

Clearly, employers must address these issues in order to preserve a productive workforce. The burden is on employers to develop family friendly work policies such as reduced hours, flexible career paths and control over work schedules. A second conference, planned for 2004, will focus on examining employees’ notions about workplace policies and practices and state and federal laws. Following this conference, NICHD plans to issue a request for applications (RFA) soliciting exploratory/developmental applications to develop model protocols to identify the best workplace policies and practices to improve health and well being. The final stage of the initiative involves issuing an RFA to form a network of research teams that will use the most successful of these experimental designs to produce a common protocol to measure the same inputs and outcomes to test across a variety of workplace settings. The conference organizers are also developing an edited book that should be available later this year.

For more information about the conference, including paper presentations, and about NICHD’s research initiative, visit the web page at the following address: www.popcenter.umd.edu/conferences/nichd. To monitor NICHD’s research opportunities, visit their website at <http://www.nichd.nih.gov>. ■

SCIENCE BRIEFS

Error is Behavior: A Revolutionary Concept

by Marilyn Sue Bogner, Institute for the Study of Human Error, LLC

Error is a common explanation for why something goes wrong – a plane crashed because of pilot error, a company is in trouble because of an accounting error. Whatever the domain or aspect of life in which an error occurs, the mention of error implies that the person associated with what went wrong is the cause, the perpetrator of the error; the error is that person's fault – he or she is to blame for it. This particularly is so for error in health care – the mere mention of error in medicine elicits strong emotions and an urge for retribution. Because of this and the timeliness of the topic, error is discussed in terms of health care although the points made are relevant to error in any domain.

A great deal of resources, both human and financial, have been and are expended in addressing error; however, when asked to define the target for all the effort, to define error, the reply will quote the literature of error classifications as rule-based, skill-based, or knowledge-based as well as slips, lapses, mistakes, and violations. Error also is described as occurring at the sharp end (immediate to) and at the blunt end (distant from) of an incident; errors also can be latent. Can a definition of error be gleaned from this? No! The terms describe but do not define error.

Error typically is identified by an adverse outcome, something that didn't turn out as expected such as an amputated healthy leg, an inaccurate diagnosis, or an omitted dose of medication. The clue that defines error is common across these examples. The adverse outcomes are the result of an action by a care provider — an act of commission or an act of omission — regardless of the classification; the error is an action, a behavior. The concept that error is behavior bridges the real world



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issue of health care errors and the research and theory of psychology that considers behavior as the interaction of the person and the environment, albeit to varying degrees depending on theory.

As commonplace as this may seem to psychologists, this is a revolutionary concept to medical error. The person associated with an error no longer is solely responsible to the point of blame for the error even though that person committed the error act, factors in the context in which the error occurred contributed to or induced the error. This expands the understanding of error from the simple concept of people committing errors driven by carelessness, ineptitude, or negligence to the pursuit of why they committed the error behavior. This is revolutionary because it is counter to the training, hence the perspective of the health care community – indeed counter to the urge for retribution of the general population.

During their training, care providers are inculcated with their responsibility for their patients' well being, thus they are responsible for anything that jeopardizes that well-being, such as error. This is to a degree, tradition throughout health care and perhaps no place is as apparent as in the weekly Morbidity and Mortality (M&M) meetings in hospitals. During those sessions physicians describe their cases in which there is a problem — often an adverse outcome – to their colleagues who discuss the cases sometimes brutally. Example M&M cases with constructive commentary are available on www.webmm.ahrq.gov — the web-based M&M funded by the Agency for Healthcare Research and Quality. The focus on the care provider as the cause of the error is evident in those cases. Although there is not sufficient information in the description of each case, it can be conjectured how the

consideration of the case would be expanded, indeed enriched, and the interpretation of error changed by addressing the role of contextual factors.

The value of identifying contextual factors that contribute to error is that changing them will affect all who work in that context by reducing the likelihood of error rather than attempting to change only the care provider, which if effective—and it rarely is—affects only that person. The context of care is in a sense, a script for a performance. The care provider under consideration (e.g., a surgeon) is an actor who interacts with other actors, the props of medical devices and other objects in the setting, as well as the setting itself, such as the operating room. The surgeon who commits an error can be replaced by another with the comparable characteristics necessary for the part, and that surgeon performing in the context of the script may commit a similar error. The script determines the outcome; to change the outcome, it is necessary to identify and change the factors in the script that elicit the error. The script of the context of health care is complex and to an extent amorphous. Assistance in dealing with this context is provided by research in domains other than health care.

Error research in industries, such as nuclear power and manufacturing, has identified categories of factors that affect the performance of a person and lead to error. Admittedly, health care is not the same as the activities of those industries, however, to the extent that such evidence-based factors may contribute to error in general, they are appropriate for this discussion. Indeed, those categories open the door to putting into practice the vast knowledge provided by the research and theory across all divisions of scientific psychology in identifying factors that contribute to error.

Research findings can contribute significantly to the study of error in each of the categories: for the category of ambient conditions, we have

conducted research on sound, light, climate; for physical environment, a wealth of knowledge is available from applied experimental and engineering psychology; for the category of social environment, our research in social psychology, group dynamics, team behavior can provide error reducing insights; for organizational factors, we have findings from organizational and industrial psychology, as well as aspects of social psychology; and for the overarching category of legal-regulatory-national culture-financial factors, the literature across divisions is replete with applicable research findings.

Thus, the concept, indeed the realization that error is behavior is revolutionary in all aspects of consideration of error. The error reporting activities recommended by the report on medical error by the Institute of Medicine of the National Academy of Sciences (Kohn, Corrigan, & Donaldson, 1999) typically consist of the physician stating what happened in terms of “Ima Surgeon lacerated Mrs. Patient’s liver.” Because of the absence of information about the context, such reports are incomplete and misleading. An error reported as an adverse outcome is a solitary data point. An outcome, however, is not a disembodied datum; an outcome doesn’t happen in a vacuum – it is the result of behavior that is influenced by the context.

Error as behavior is revolutionary not only for the analysis of adverse outcomes, but also in the opportunities it provides for psychology to turn research into practice and make a significant contribution to society wherever error occur. This revolutionary concept is particularly important in health care because it affects the well being of everyone. ■

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Robert T. Croyle Appointed Director of DCCPS

by Jonathan Tin

Robert T. Croyle was named Director of the Division of Cancer Control and Population Sciences (DCCPS) at the National Cancer Institute on June 30. Croyle had been the acting Director since November 2002.

Croyle is responsible for building DCCPS’ highly regarded Behavioral Research Program, where he spent four years contributing to some of NCI’s highest priority areas, including research on tobacco and tobacco-related cancers, cancer communications and survivorship, and health disparities.

Croyle received his PhD in social psychology from Princeton University in 1985. His recent research has examined how individuals process, evaluate, and respond to disease risk information, including medical diagnoses, risk factor screening, and tests for BRCA1 and BRCA2 mutations. His research has been published widely in professional journals in behavioral science, public health, and cancer.

Croyle is a member of the Academy of Behavioral Medicine Research and a fellow of the Society of Behavioral Medicine. Croyle has been awarded the NIH Merit Award (1999 and 2002) and the NIH Director’s Award (2000). He received a Meritorious Research Citation from APA’s Board of Scientific Affairs in 2002, which recognizes outstanding service to psychological science by psychologists in the federal government. ■

SCIENCE BRIEFS

The Social Impact of Internet Use

by Robert Kraut and Sara Kiesler, Carnegie Mellon University



ROBERT KRAUT

Psychologists have long studied how people's communication context changes social relationships. Classic studies by Festinger, Schachter and Back (1950) and Newcomb (1961) examined how people's physical proximity influenced their communication patterns and friendships. The Internet opens new options for communication that may challenge our understanding of how communication shapes social relationships. We have been studying the influence of Internet use on social relationships since 1995 (Kraut, Scherlis, Mukhopadhyay, Manning, & Kiesler, 1996).

Over 60% of U.S. households now have a personal computer and over 50% have Internet access (U. S. Department of Commerce, 2002). Although people use the Internet for many purposes, interpersonal communication is probably the most important, in the sense that it is most popular (e.g., Horrigan & Rainie, 2001) and drives other Internet use (Kraut, Mukhopadhyay, Szczypula, Kiesler, & Scherlis, 1999).

This Science Briefs article is being reprinted from the previous Summer 2003 issue, due to a misprint in the last version. We apologize for any inconvenience this may have caused for our readers. An online version of this document is also available on our PSA web page at: <http://www.apa.org/science/psa/psacover.html>.

Robert Kraut is Herbert A. Simon Professor of Human-Computer Interaction at Carnegie Mellon University. He received his PhD in Social Psychology from Yale University in 1973, and previously taught at the University of Pennsylvania and Cornell University. He was a research scientist at AT&T Bell Laboratories and Bell Communications Research for twelve years. Kraut has broad interests in the design and social impact of computing and conducts research on everyday use of the Internet, technology and conversation, collaboration in small work groups, and computing in organizations. More information is available at www.cs.cmu.edu/~kraut.

Sara Kiesler was trained as an experimental social psychologist and has a PhD in psychology. She has held positions at Yale, Connecticut College, University of Kansas, the National Research Council, Interval Research, and Carnegie Mellon University. Her research aims at understanding the design and social impact of computer and telecommunications technologies. She has studied social aspects of communicating through computer networks, and she published papers on phenomena such as flaming, group equalization in electronic groups, and participation of remote and marginal organizational members in teams. With Lee Sproull, she authored *Connections: New Ways of Working in the Networked Organization* (MIT Press). Her subsequent work included HomeNet, the field study of families on the Internet; studies of collaborations and distributed work arrangements in organizations; and studies of human-robot interaction.



SARA KIESLER

Because interpersonal communication dominates Internet use, using the Internet could have positive social impact on people's social engagement and on its psychological benefits (e.g., Cohen & Wills, 1985; Diener, Suh, Lucas, & Smith, 1999). Research, however, suggests that online communication is less beneficial than offline communication. For example, communication online is less interactive than face-to-face or telephone conversation, and it conveys less contextual information per unit of time (Sproull & Kiesler, 1991). Relationships developed or maintained online are slower to develop (Walther, 2002) and weaker than those developed or maintained in more traditional settings (Cummings, Butler, & Kraut, 2002; Parks & Roberts, 1998).

Our approach

Most claims about the social impact of the Internet are based on evidence from cross-sectional surveys that compare Internet users and non-users on such social outcomes as communication with family, community participation, or

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psychological health (e.g., Katz & Rice, 2002). It is well known, however, that Internet users and non-users differ in their demographic attributes, attitudes, values, and life style (see U. S. Department of Commerce, 2002 for evidence on demographic differences). Statistical controls for pre-existing differences between Internet users and non-users in cross-sectional samples are generally inadequate, because measurement errors cause statistical techniques to under-adjust and because researchers fail to include relevant individual differences, such as extraversion.

We have adopted a longitudinal approach, examining changes in social variables of interest among comparatively light and heavy Internet users. Measuring the effects of Internet use across time on the same individuals provides natural controls for pre-existing differences. By using statistical growth models (Singer & Willett, 2003), one can identify the attributes of individuals, including their amount and type of Internet use, that predict changes in social engagement and psychological well-being.

Since 1995, we have conducted studies of Internet use. We describe three here. Others can be found at <http://homenetresearch.org/progress>. We conducted the first project, HomeNet-1, in the early days of residential Internet use. To examine how ordinary Americans would use this then-new technology, we created a field experiment. We gave families Internet access in exchange for observing their online behavior. Much of this early work was descriptive, to understand how people integrated the technology into their lives. In the HomeNet-2 project, in 1998, we recruited a sample that had recently purchased a new home computer. We intended to conduct a true experiment, by randomly providing half of the computer purchasers with free Internet service. Unfortunately, within six months, 83% of the households assigned to the no-

Internet control condition purchased Internet service on their own. As a result, we examined the impact of Internet use through analysis of the longitudinal data. By HomeNet-3, in 2001, we were convinced that how people used the Internet influenced its impact over time. For example, using the Internet to find information might have a different impact than using the Internet for talking with friends and family. We recruited a large U.S. sample, to provide sufficient statistical power to differentiate the effects of specific uses of the Internet.

Internet use, social involvement and psychological well-being

Given the extensive use of the Internet for interpersonal communication, we have been surprised to find that greater use of the Internet doesn't necessarily lead to larger social networks, more social support, better relationships with online partners, or the positive psychological outcomes generally associated with social engagement. For example, in all three studies, compared with people who did not use the Internet at all or used it lightly, people who used the Internet heavily reported larger increases in daily life stress (Holm & Holroyd, 1992; Kanner, 1981). Internal analyses did not reveal a single stressor or source of stress that increased with Internet use. Rather, Internet users appear to experience a diffuse increase in stress. One explanation is that the Internet introduces more activities and social obligations into users' lives, and the increased time pressures add stress to what had been a slower-paced life. Another explanation is that difficult-to-use technology, barrages of information and communication, and other online irritants make users more sensitive to routine events that they could have easily coped with in the past.

Our other findings about the impact of Internet use on social involvement and psychological well-being have been less consistent. Our initial research (Kraut et al., 1998) showed that greater use of the Internet was associated with declines in users' communication with

family members, declines in the size of their social circle, and increases in their depression and loneliness. This research led to national news articles with evocative headlines, such as "Researchers Find Sad, Lonely World in Cyberspace." A 3-year follow-up of the same respondents, however, found that most of the negative effects dissipated (Kraut et al., 2002, study 1).

In HomeNet-2 (Kraut et al., 2002, study 2), computer purchasers, after a year, generally experienced positive effects from using the Internet on communication and social involvement—increases in the size of their social circles, face-to-face communication, community involvement, trust in people, and positive affect. At the same time, heavier Internet use was associated with the increases in stress already mentioned and declines in users' knowledge of, and commitment to, their local area. Consistent with a "rich get richer" hypothesis, having more social resources amplified the benefits that people got from using the Internet. Among extraverts, for example, using the Internet was associated with increases in community involvement and self-esteem, and declines in loneliness, negative affect, and time pressure. The reverse trends were found for introverts.

Our most recent national panel study, as yet unpublished, shows a mixed pattern, in which using the Internet for entertainment and information search is associated with different changes in social outcomes than using it for communication with friends and family or for meeting new people online. Overall, people who use the Internet for social purposes are more generally socially engaged offline as well, but their use of the Internet for social purposes, surprisingly, predicts declines in some measures of social engagement. We continue to examine how people's uses of the Internet and individual differences play a role in the impact the Internet has on them. We believe that a major reason for some changes in our findings over time is that the Internet,



the purposes for which it is used, and norms surrounding use are co-evolving. The Internet of today is not the Internet of

1996, and the Internet of tomorrow will not be the Internet of today. For example, the nature of electronic mail changes as more friends and family go online and as more companies send unsolicited advertisements. As these changes take place, people will find new ways to use this technology, and its social impact will change once again.

Reflections

We originally predicted that because the Internet is a social technology, using it would have effects similar to traditional forms of communication: more social support and less loneliness and stress. For some people, this positive expectation seems to be confirmed. Their social contacts and outcomes are augmented by Internet use. Among people whose Internet use fails to have these beneficial consequences, we believe there are two reasons. First are the activities these users perform online. Not all Internet use is communication, and even communication can be harmful in some circumstances. For example, in our early studies, we witnessed teens from different high schools hurling racial insults and anti-Semitic epithets over electronic mail. Second are opportunity costs. The time people spend online can come at the expense of other, more valuable offline activities. For example, in our early research we saw teens spending hours online chatting with strangers instead of hanging out or playing sports with friends from school. This behavior was especially likely during the mid-1990s, when only a small fraction of the U.S. population was online and software applications like instant messaging, which links "buddies," were not yet developed. For those teens in 1996, online communication, of itself, was

not harmful. Rather it provided fewer benefits than communication with local friends, who, for example, could provide more social support. More generally, online communication may be harmful if it substitutes for more effective ways of being with people. As the technologies for online communication evolve, they will offer new ways for people to substitute or augment their valuable social relationships. Psychologists can discover the choices people make in using the Internet and their consequences. They can also participate in the design of online communication so that it is socially beneficial. ■

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Coalition Meets to Identify Contributions to Public and Private Education

by Marianne Ernesto, Director for Testing and Assessment, and Brett Pelham, Senior Scientist

The first meeting of the Coalition for Psychology in Schools and Education convened the weekend of June 28 and 29, 2003, at APA headquarters in Washington, DC. This relatively new coalition is made up of approximately 30 psychologists representing various APA divisions and affiliated groups committed to using state of the art research tools and psychological science to assist in the refinement and development of education from pre-K to grade 12 in the U.S.

On Saturday, co-organizers Steve Rollins and Rena Subotnik led a lively discussion that began with refining the coalition's mission statement. The result was a draft statement focused on getting psychologists more involved in improving education in the U.S.

Those familiar with provisions contained in the No Child Left Behind (NCLB) legislation may have guessed that a great deal of the group discussion later on Saturday focused on the implications of this new legislation for children and educational professionals across the country. The group noted that if this legislation is to improve the quality of education for children in a climate of tight budgets and heavy workloads for educators, many difficult questions must be answered. For example, how does one assess "Adequate Yearly Progress" (AYP) for students who live in worlds as diverse as Lincoln, Nebraska; Bethesda, Maryland; and South Central Los Angeles? Is it possible to develop assessments of teacher performance that remain both reliable and valid when used in these same diverse school settings? How can psychologists help to minimize the cultural and socioeconomic biases that have often plagued achievement testing in the past? What is the ecology of an effective school? How can psychologists assist educators who are working to increase

parental involvement in the educational process?

The group discussed the role that psychologists can play in educating the public about the successes rather than the failures of our existing educational system. For example, Ron Palomares (Practice Directorate, APA) reminded



the group that at the upcoming convention in Toronto, the Institute for Psychology in the Schools will be offering a continuing education course, "Resilience: Inoculating Children from the Inside Out," designed to teach psychologists and educators ways to foster resilience among children.

Throughout their discussions on Saturday, members of the Coalition emphasized the importance of cooperating with the wide range of educational professionals who are also working to improve and refine public and private education. This not only includes the members of the numerous professional organizations who are actively involved in improving education and educational assessment such as the American Educational Research Association (AERA), and the National Council on Measurement in Education (NCME), but also those individuals who are working on the front lines in the battle to improve education (e.g., teachers, administrators, and guidance counselors).

Coalition members also discussed the importance of working with other APA committees and directorates, such as Science, Practice, and Public Interest that were dealing with issues relating to education to tackle a problem as big as education. Accordingly, the Coalition scheduled an introductory meeting with the members of the Committee on

Psychological Tests and Assessment (CPTA), on Saturday afternoon to discuss areas for possible collaboration. As a result of that meeting, CPTA agreed to designate a member, Rebecca Zwick, as an informal liaison to the Coalition. CPTA also agreed to serve as a resource for information concerning other educational assessment related groups and as a contributor/reviewer for any assessment related statement the Coalition may develop.

On Sunday, the group once again touched on issues related to educational assessment and evidence-based decision-making: specifically, issues related to data interpretation and use. It was mentioned that in light of the new NCLB provisions, many school administrators, teachers, and parents are faced with the task of making education-related decisions that require some knowledge of psychometrics. Members of the Coalition identified the pressing need for the development of an "easy to understand" informational guide to data interpretation and utilization to assist these groups.

Those attending the weekend conference did not answer all of the questions they raised, but they laid the foundation for future discussions (during the upcoming APA convention in Toronto) while reaffirming their dedication to identifying the primary ways in which psychologists can make important contributions to public and private education. ■

An APA Science Policy Fellow Looks Back

by Tamara Jackson

I came to Washington, DC, about two years ago full of excitement. Trained in clinical psychology, my primary goal was to explore new ways of applying my skills. I was not sure what to expect but was eager to explore pathways that would, hopefully, open up for me.

Looking back over my career as a graduate student, my enthusiasm for psychology had resembled a roller coaster ride throughout my training. Initially, I was very enthusiastic, but my interest had often waxed and waned. One of the reasons for my deflated passion was the erroneous belief that my career options were limited to becoming either an academic researcher or clinician or some combination of these two. None of these options particularly appealed to me at the time. In addition, the constant buzz of managed health care and its impending impact on clinical psychology left me feeling rather discouraged as a graduate student. Clearly, I needed to discover another outlet for my skills and interests.

A major turning point for me was having the opportunity to do a summer internship at the Centers for Disease Control and Prevention in Atlanta. There I had an opportunity to get an idea of some of the “alternative” ways to use my skills as a social scientist. I had an opportunity to witness and work with other social scientists across diverse fields, like sociology and anthropology, who were making significant contributions in the field of public health through their research and other unique skills from their respective fields. I worked in the communications branch of the National Centers of HIV, STD, and TB Prevention. It was there that I developed my appreciation for the importance of information dissemination and the need to connect research and practice at the local, state and national levels. After the internship, I went back to graduate school with a renewed sense of purpose and

excitement. Because of that opportunity, I was able to seek out other opportunities that would fuel my interest in public health and hopefully lead me in that direction.

Subsequently, I did an internship at Yale University School of Medicine in a program that had focused on community psychology and public health. Another epiphany for me was when a supervisor suggested that I look into the American Psychological Association Congressional fellowship program as a way of entering into the policy arena. Immediately I knew this would be an ideal opportunity for me to discover and explore options that were not readily apparent to me.

After completing my postdoctoral training, I started the APA congressional fellowship that, I believe, opened up ideas, thoughts, and perspectives to which I otherwise would not have been exposed. Working as a legislative assistant in the U.S. Senate, I had the opportunity to draft legislation on obesity and chronic disease prevention and treatment that provided funding to state and local school districts that would enable them to set up healthier environments, specifically focusing on improved nutrition and physical activity, and on mental health. Also, I was responsible for writing speeches, organizing congressional hearings and briefings, and becoming well versed in topics ranging from global health to cloning and stem cell research. Most importantly, I found great value in having the opportunity to work from the policy end and see how ideas and visions are translated into legislation and then into research and community-based programs similar to those with which I have been involved.

The congressional fellowship provided me with wonderful exposure to the legislative process, and I was hungry to see more. Fortunately, I had the opportunity to remain with APA as a Science Policy Fellow and eagerly



seized it. Through the fellowship program, I worked as a policy analyst in the White House Office of Science and Technology Policy (OSTP). The primary role of OSTP is to serve as a source of scientific and technological analysis and judgment for the President on major policies, plans, and programs within the Federal Government. During my time at OSTP, I have had the opportunity to get a bird's-eye view of many of the federal agencies and how they function and implement programs. Specifically, I participated in the work of a subcommittee of the National Science and Technology Council that focuses on analyzing math and science education programs across federal agencies to increase interagency coordination and enhance the quality and access of math and science education for all youth. As a psychological scientist within OSTP, I believe it has been critical to bring our field's expertise in learning research and our interest in seeing psychology taught as a science to this project.

As expected, the past two years have been a whirlwind of opportunities with a steep learning curve. I've accepted a position as a professional staffer with Sen. John McCain on the Science, Technology, and Space subcommittee on the Senate Commerce, Science, and Transportation Committee. I look forward to continuing my journey in the world of policy. ■

Budget Efficiency Initiative Impacts NIH

by Karen Studwell, Public Policy Office

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Efforts by the Bush Administration to increase government efficiency and reduce the size of the federal workforce have caused much confusion and anxiety in many federal departments, including the National Institutes of Health. The main concern for organizations like APA is the possible detrimental impact competitive sourcing may have on grants management functions and scientific positions. It is unclear how far the government will go in competitively bidding many of the functions currently performed by government employees.

At issue is an executive rule implemented by the Office of Management and Budget known as Circular A-76, which lays out procedures for determining which functions now being conducted by government employees might be more efficiently or less expensively performed by private contractors. All federal departments are implementing the circular by reviewing the functions of their own workforces. The process has raised concerns that the scientific functions of the government might be compromised if scientific positions are outsourced, and if the scientific agencies lose control of which scientists are hired for important grants-related positions.

In June, NIH Director Elias Zerhouni, addressing the National Institute of Child Health and Human Development Advisory Council, acknowledged that

the process has caused some anxiety among the NIH staff and scientific organizations. He reiterated that the initial process would begin with a determination of which functions are inherently “non-governmental” and should be reviewed. Those functions will not automatically be outsourced but will go through a competitive bidding process. Zerhouni emphasized that NIH will also be competing in the process and will likely win most of those competitions given its expertise and demonstrated efficiency. He reiterated that with NIH’s overall management costs at approximately 4 percent, it is one of the government’s most efficient agencies.

In Fiscal Year 2003, a full generic competition is ongoing in grants (including program management, review and administrative support), real property (facilities) management, and “other opportunities,” a catch-all category that enables the review teams to be flexible about their targets. In FY 2004, the targets are fire prevention, functions that were scheduled for FY 2003 but were not completed and, again, “other opportunities.”

NIH management staff at an A-76 Town Meeting in March assured a questioner that the health scientist administrator position is not scheduled to be competed. Health science administrators have responsibility for scientific portfolios of grants and

interact with scientists. It is possible that after review, NIH may decide that some additional administrative grant management functions could be contracted out, but that determination has not been made.

By FY 2004, NIH must review 25 percent of the more than 9,300 jobs that are not considered “inherently governmental” and therefore could potentially be performed by outside contractors. Functions, not individual employees, are the subject of A-76 review. According to the *NIH Record*, functions are picked based on where NIH feels it can best improve its mission. The steering committee looked at all functions and ranked those with the greatest opportunities for improvement.

APA Science Public Policy staff is monitoring the implementation of Circular A-76 and several other issues that may detrimentally impact the management of NIH. APA is working in collaboration with other scientific organizations to communicate our concerns with NIH Director Elias Zerhouni, Secretary of HHS Tommy Thompson, Office of Management and Budget Director Joshua Bolten and key congressional offices.

More information on the A-76 process can also be found on the NIH Web site at: <http://a-76.nih.gov>. ■

SPIN: Science Policy Insider News

What is SPIN?

APA’s Science Policy staff wants you to know about the important policy issues that affect psychological science and psychological scientists at the national level. The Science Policy staff advocates for psychological science not just with members of Congress, but also the Departments of Defense, Health and Human Services, Transportation, Veterans Affairs, Education and with the National Aeronautics and Space Administration and National Science Foundation.

To keep you aware of science policy within these agencies and on Capitol Hill, we have created APA’s Science Policy Insider News (SPIN), a monthly email newsletter that will take you inside the Administration and Congress for timely information. Visit www.apa.org/ppo/issues/spinhome.html to read legislative news, subscribe to SPIN via the web, or to browse through past issues.

New Features on the Science Homepage

If you haven't looked at the Science homepage lately, this is a great time to log on. We suggest you take a moment to delve into the newest features that our web site has to offer. With exciting developments in progress, more streamlined elements, and a more refined system of navigation (such as our new A-Z page), the Science site is moving forward to better address your needs.

You will see that there is a redesigned Science home page that directs you to news, publications and current featured programs. The goal of the redesigned web and new material is to improve the web site as a resource for your information needs. Some new features provide resources and information in emerging areas in psychological science.

One new feature is the Genetics in Psychology homepage (<http://www.apa.org/science/genpsyc.html>). Put together under the direction of BSA Working Group on Genetics Research, this web material is designed to provide information about ethical issues, genetic research institutes in the center of psychological science and neuroscience discovery, opportunities in education, and prospects for funding. The site will be regularly updated, and your feedback is welcome. Please send your comments (to science@apa.org).

Another new resource is the data sharing/ data archiving web page. This site will provide information about data sharing policies from federal funding agencies, list bibliographic resources about data sharing, have links to national and international data sharing initiatives and projects, and will provide a compendium of data archives and data sets in the behavioral and social sciences that are available electronically over the web.

Getting to the Science web site through the APA website is now easier than before. To access the Science Directorate home page from the APA site, just type "Science" in the search

engine box, on the top left hand corner of any page. This will take you to the Science homepage in a matter of milliseconds. Once you are on the Science homepage, you can navigate quickly to any program, initiative or office by using the new A-Z page that lists all topics and programs currently active in the Science Directorate.

While you are browsing the web, visit our Funding page (<http://www.apa.org/science/funding.html>) for access to the Funding Bulletin (which lists current grant program announcements), FundSource (which takes you to researcher funders), and general links to information about grants, awards, and scholarships.

You can also access this current Psychological Science Agenda as well as past issues online at (URL). One of PSA's regular features, the "Interesting Careers" column, is compiled separately – see all those articles together at: http://www.apa.org/science/nonacad_careers.html. Find out the range of career paths your psychological science colleagues have taken – from book editor to science writer to medical error consultant to the White House.

This is an especially good time to make a web bookmark to Psychological Science Agenda. After this issue it will say farewell to print and become a fully online newsletter. When this happens, you can expect the Science web site, with its online PSA, to feature more articles, interviews, and discussion of emerging issues in the field of psychology.

The electronic newsletter, due to debut in October 2003, will be emailed to all of you who currently receive PSA by mail, and will also be prominently featured on the Science homepage. Please help us make this transition a smooth one — send your email address to science@apa.org, so you will not miss an issue. Please encourage your

colleagues to send us their email so we can add new readers to our mailing list.

For any general questions regarding the web site, please email all comments to Amena Hassan, Science Communications Officer, at ahassan@apa.org. ■

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Research Funding Bulletin

The APA Science Directorate has reinstated its Research Psychology Funding Bulletin!

It is now available on the APA web site:

www.apa.org/science/researchfunding.html.

The bulletin, which is updated monthly, lists special opportunities for individuals and agencies seeking research funding. To post an announcement to the bulletin, please send specific information to science@apa.org.

AN INTERESTING CAREER

A Forensic Psychologist in the FBI

by Anthony J. Pinizzotto, FBI Senior Scientist

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Intense controversy currently surrounds the Roman Catholic priesthood in America. Allegations of recent wrongdoing by members of the FBI have brought into question by some their fidelity, bravery, and integrity (the FBI creed). Occasional stories of psychologists abusing patients or making fraudulent insurance claims have made front-page tabloids. And so as a Roman Catholic priest who works for the FBI as a forensic psychologist, when I'm asked, "What do you do for a living?" some may wonder why I don't say something like, "I'm a greeter at the local discount store." And yet, the combination of these three professions makes for an interesting, enjoyable, educational and fulfilling workday!

Admittedly, if someone had told me thirty-five years ago when I entered the seminary that I would eventually be working as a forensic psychologist in the FBI's Behavioral Science Unit (BSU), it would have strained even my faith. As a young seminarian with a bachelor's degree in English and a master's degree in moral theology, I would not have anticipated the next thirty-five years would result in having worked in uniform with the Metropolitan Police Department in Washington, DC, receiving a master's degree in forensic psychology from John Jay College of Criminal Justice in NYC, a PhD in psychology from Georgetown University and completing an internship at Bellevue Hospital. There must be something to the adage, "Being at the right place at the right time."

In some ways, though, it seems like a perfect fit: an examination of the evil men, women and children do from a theological, psychological and legal perspective. It becomes even more interesting when the prism through which I view the world combines the



Anthony J. Pinizzotto received a bachelor's degree in English from De Sales University, an MA in forensic psychology from John Jay College of Criminal Justice, City University of New York, and an MA in theology and pastoral counseling from the DeSales Graduate School in Washington, DC. His PhD in psychology is from Georgetown University where his doctoral dissertation dealt with criminal personality assessment and crime scene investigation. Pinizzotto is currently assigned to Training Division's Behavioral Science Unit (BSU) of the FBI, located at the FBI Training Academy in Quantico, VA, where he teaches clinical forensic psychology. As Senior Scientist, Pinizzotto is chief liaison between academic, professional, and criminal justice agencies, and the scientific exploration and investigation within the FBI's Training Division and the Behavioral Science Unit.

Christian humanism of St. Francis deSales, the patron of my Religious order, and the determinism of Sigmund Freud, the psychological orientation I've adopted. The resultant hybrid is something of a BioPsychoSocioSpiritual perspective: basically good people making choices within given and set parameters. Some of those choices turn out to have wonderful effects on themselves and others; some of those

choices turn out to be pretty awful ones that have catastrophic effects on others.

My current position in the FBI is Senior Scientist and Forensic Psychologist within the BSU. My responsibilities include liaison among academic, professional, and criminal justice agencies, and the scientific exploration and investigation within the FBI's Training Division. The mission of the BSU is threefold: Teaching, Research and Case Consultation. My teaching responsibilities include classes entitled *Clinical Forensic Psychology*, and *Violent Behavior: A BioPsychoSocial Perspective*. The students in these classes form the National Academy at the FBI's Training Academy in Quantico, VA, an eleven-week course of studies for sworn law enforcement officers from around the world.

Since my entrance on duty with the FBI in 1988, I have researched various areas of law enforcement safety. This research resulted in a number of articles, training guides, and publications including *Killed in the Line of Duty* and *In the Line of Fire*.

Within the last several years, I've assisted in developing a program entitled "The Use of Deadly Force in Law Enforcement." This three-day seminar was established to assist Assistant United States Attorneys review the use of deadly force incidents by members of law enforcement. My particular training segments include threat assessment, perceptions of the officer and of the offender in the use of deadly force encounters, and sensory distortions involved in critical incidents. Most recently, I have served as a consultant and trainer in the United States Attorney General's "Firearms Interdiction

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Program” which is designed to assist local law enforcement in removing firearms from criminals on the streets of our country.

The world changed on 9/11. The study and investigation of terrorism have been introduced into every unit and on every level within the FBI. This includes the BSU. As a result of these endeavors to understand the mind of the terrorist, our Unit has been working with various components of the American Psychological Association (APA) and with individual psychologists with varying areas of expertise. In cooperation with the APA and with the support of the University of Pennsylvania, the BSU sponsored a conference in February of 2002 entitled “Countering Terrorism: Integration of Practice and Theory.” This conference brought together leading academics and expert practitioners in such fields as

social psychology, forensic psychology, and human factors, with various law enforcement agencies. The results of this conference are available on the FBI website: <http://www.fbi.gov/publications/cournterrorism.pdf>. The BSU continues to work closely with the APA and is considering a second conference on aspects of terrorism as they relate to the first responders within the law enforcement community.

Serving on the editorial boards for *Criminal Justice and Behavior: An International Journal* and for the *International Journal of Offender Therapy and Comparative Criminology*, I am able to keep up with some of the latest developments within the criminal justice literature. In addition to teaching, research, and case consultation, I’ve lectured throughout the United States, Canada, Switzerland, Italy and the United Kingdom on topics regarding law enforcement safety, criminal investigative psychology, personality

assessment, hate-related crimes, and deviant social groups.

My original focus in forensic psychology, since the publication of my dissertation in 1988, has been on the application of principles of psychology to crime scenes and the subsequent interview and interrogation of the offender. This led to the interest and eventual practice of investigative or forensic hypnosis.

Stationed at a Catholic parish in the Quantico, VA area affords me the opportunity to serve a community as a priest. It is, after all, this part of my life that helps to give a healthy perspective to some pretty strange experiences. It doesn’t always offer answers “to the evil men do,” but it does help to cope with the effects of that evil. Although I could never have pictured myself in this position some thirty-five years ago, it’s difficult to think of doing anything other than this...all of this! ■

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Friends of NICHD Highlight Research with Policymakers

by Karen Studwell, Public Policy Office

The Friends of NICHD, co-chaired by APA’s Karen Studwell, continues to advocate for increased federal investments at the National Institutes of Health and specifically at the National Institute of Child Health and Human Development. The Administration proposed a disappointing 2 percent increase for NIH, though many other public health programs were cut or level funded. The Friends Coalition and the broader scientific community are requesting a 10 percent increase for NIH. The Friends are also advocating for a 10 percent increase for NICHD, which would provide \$1.32 billion for the institute.

In May, the Friends submitted testimony to the House Appropriations Subcommittee on Labor, Health and Human Services and Education requesting these increases, and organized visits to the offices of several key members of the House and Senate

Appropriations Subcommittees to discuss the need for additional appropriations to sustain stable funding sources for research.

On June 2, the Friends co-sponsored a congressional briefing with the Ad Hoc Group for Medical Research Funding featuring Duane Alexander, Director of NICHD. The purpose of the briefing was to educate congressional staff on the congressionally authorized National Children’s Study (NCS) and the impact it will have on NIH’s budget. The proposed study would examine a cohort of 100,000 children to determine physical, social, and behavioral environmental influences on child health and development. Alexander explained that in order for the study to go forward, NICHD would require significantly more resources in FY 2005 and beyond to preserve its other research programs.

As expected, Congress is very supportive of NIH and its research contributions, but the next few years will be particularly tough for NIH, with FY 2005 budget increases expected to be just as low as FY 2004. To ensure increased funding for NIH, congressional staff say they will have to cut other health programs, which are already slated for cuts in the President’s budget. NIH has proposed to count some infrastructure and facilities costs from FY 2003 as one-time only costs, so that research funding should actually increase by 7 percent in FY 2004. There are serious concerns about how the FY 2005 budget will further restrict NIH’s ability to fund research.

If you would like to advocate on behalf of NIH funding, please visit our website at <http://www.apa.org/ppo>, or read the *Science Policy Insider News* (SPIN) to stay informed about the appropriations process. ■

Summer Science Institute Meets in St. Louis

by Virginia Holt, Assistant Executive Director for Science

Steamy summer weather could not dampen the enthusiasm of 32 talented undergraduate students at the 8th annual APA Summer Science Institute. Held this year at Washington University in St. Louis, the program featured more than 20 of the exceptional faculty members at Wash U.

Henry L. Roediger, III, was the organizing force at Wash U., lining up outstanding presentations on such diverse topics as eating disorders, cognitive neuroscience, and decision-making in humans and animals. The students also had opportunities to visit the laboratories of several of the faculty, including the fMRI lab of Deanna Barch and Todd Braver.



Edwin Barea-Rodriguez shows his collection of brains.

Edwin Barea-Rodriguez of University of Texas, San Antonio, served as the kick-off presenter. His collection of animal brains was a real eye-opener for the students, most of whom had never handled a brain before (see the more images of the Summer Science Institute on the page 21).

2003 SSI students included: Eric Ammann, Amherst College; Charisma Canty, Elizabeth City State University; Molly Crockett, UCLA; Zina Deldar, Carleton College; Richard Flannery, Loras College; Zachary Friedman, Univ. of Pennsylvania; Susan George, Indiana Univ. of

Pennsylvania; Vivian Ho, Cornell University; Nicholas Holtzman, Loyola Univ., New Orleans; Virginia Huynh, Loyola Marymount Univ.; Bethany Jacobson, St. Olaf College; Jennifer Klafehn, Furman University; Gale Lucas, Willamette University; Kristen



Malkus, The College of William & Mary; Patrick McConnell, Saint Mary's College; Kristin Miller, Agnes Scott College; Mary Olanich, Lebanon Valley College; Sarah Pachulicz, Goshen College; Benita Panigrahi, Virginia Commonwealth Univ.; Michael Ransom, Elon University; Megan Reh, Bradley University; Kathryn Reynolds, Cornell University; Jamie Ridenhour, N.C. State University; Lydia Romano, Williams College; Joshua Shumen, Florida State University; Jennifer Silvers, University of Virginia; Adam Stern, Brown University; Joseph Taylor, Davidson College; Cathy Tran, Univ. of CA, Santa Barbara; Leo Trottier, University of Toronto; Akins VanHorne, Queens University; and Daniel Zohn, Bates College.

Planning has begun for the 2004 SSI. Look for application information on the Science Directorate website in November. ■

Capitol Hill Reception Highlights Two Psychologists

by Heather Kelly, Public Policy Office

On June 17th, APA and the Federation of Behavioral, Psychological, and Cognitive Sciences (of which APA is a member) showcased psychological research funded by the National Science Foundation (NSF) at a Capitol Hill Exhibit and Reception.

The event, sponsored by the Coalition for National Science Funding, drew over 270 attendees, including eight

Members of Congress: Reps. Frank Ballance, Jr. (D-NC), Lois Capps (D-CA), Howard Coble (R-NC), Vernon Ehlers (R-MI), Dale Kildee (D-MI), Jim Kolbe (R-AZ), Mike McIntyre (D-NC), and David Price (D-NC). Also in attendance were Rita Colwell, Director of NSF, and Kathie Olsen, Associate Director for Science at the White House Office of Science and Technology Policy.

APA's exhibitor, Linda A. Jackson from Michigan State University, presented results from her HomeNetToo project, which examines the effects of home internet use on low-income families. The Federation highlighted research by APA member Barbara Landau (the Johns Hopkins University) and her colleague Jim Hoffman (University of Delaware). ■



Sarah Pachulicz, Charisma Canty, and Zack Friedman attempt to build a tower with construction paper, a task often given to research subjects to determine their communication styles by presenter and Washington University faculty member Brian Carpenter.

More Images from the Summer Science Institute...



Students enjoy the closing dinner, held in the elegant Women's Formal Lounge on the Washington University campus. Left to right are Dan Zohn, Akins VanHorne, Leo Trotter, Jen Silvers, Jen Klafehn, and Molly Crockett.



Following his lecture, Washington University faculty member John Hetts explains more about his theories of political psychology to Dan Zohn, Nick Holtzman, Akins VanHorne, and Gale Lucas.



Len Green of the Washington University faculty explains to Nick Holtzman some of the intricacies of choice behavior in pigeons.



SSI participants visit the St. Louis Zoo during some free time. Left to right, Benita Panigrahi, Charisma Canty, Richard Flannery, Mike Ransom, Cathy Tran, Virginia Huynh, and Josh Shumen.

International Psychology

by Merry Bullock, Associate Executive Director for Science

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With the APA convention in Toronto this year, the international face of psychology is even more apparent. Of course, psychology has always been international — many of you have collaborations with researchers around the globe, read articles by colleagues around the world, and interact with APA's Office of International Affairs or its UN representatives (see www.apa.org/international), APA's Committee on International Relations in Psychology – CIRP (see www.apa.org/CIRP) and with APA's Division 52 – the Division of International Psychology (see <http://orgs.tamu-commerce.edu/div52/>).

But do you know how psychological science is represented in umbrella organizations at the national and international level? One way is through the US National Committee for Psychology (USNC) housed at the National Academy of Sciences (NAS), and through its parent group, the International Union of Psychological Science (IUPsyS).

The USNC for Psychology is a committee appointed by the President of the NAS, from nominees submitted from several psychological associations including APA, the American Psychological Society (APS), the

Psychonomic Society, the Society for Research in Child Development (SRCD) and the Society for Personality and Social Psychology (SPSP). The committee's mission is to inform US



psychology about international events, to represent the US point of view to the international Union for Psychological Sciences (IUPsyS), and to represent US science to the rest of the world, along with the other US National Committees for other sciences under the umbrella of the NAS's Policy and Global Affairs Division.

The USNC's current projects include conducting a web-based survey on international research collaborations, participating in collaborative efforts with DIVERSITAS (a multidisciplinary initiative on biodiversity) (see the USNC website at <http://www7.nationalacademies.org/usnc-iupsys/index.html> for information), and arranging symposia at international congresses such as CODATA (Committee on Data for Science and Technology – see <http://www.codata.org/>) or the International Congress of Psychology.

The parent body to the USNC is the International Union of Psychological Science (IUPsyS). You are probably most familiar with it as the sponsor of the International Congress of Psychology that is held every four years (the next one is in 2004 in Beijing, China). The IUPsyS serves as a voice for psychological science and psychology in international organizations such as the International Council for Science (ICSU), the International Social Sciences Council (ISSC), WHO, UNESCO and the UN. It coordinates international projects under the auspices of these bodies – primarily to develop dissemination, training and networking initiatives.

Like APA's own Committee on international relations (CIRP), IUPsyS monitors and responds to general science issues such as the free circulation of scientists; and to issues specific to psychology such as international norms and best practices in research regulation, capacity building in methodology, curricula and training, and advocacy for including behavioral issues and topic in health, education and social service research and policy. For more information see the IUPsyS homepage (www.iupsys.org) or subscribe to its electronic newsletter by sending a note to web@iupsys.org. ■



New Staff: Senior Scientist Joins the Science Directorate

by Brett Pelham, Senior Scientist

As a second grader, I hoped to do two things when I grew up. First, I wanted to become a scientist. I was fascinated by the amazing discoveries of great thinkers such as Galileo and Isaac Newton, and completely trusted what my teachers and textbooks told me: for those who could get the work, being a scientist was a great line of work.

My second goal was to live in a trailer park. The wealthiest person I knew was my grandmother, and this was where she lived. Of course, I saw no reason why I couldn't achieve these goals together. I figured Sir Isaac Newton had probably lived in a very swanky trailer park.

With the benefit of about 35 years of experience, I can see my view of both science and trailer parks was highly distorted. At age seven, there was no way I could have appreciated the tremendous amount of dedication it takes to become a scientist. Likewise, given the world in which I grew up, there was no way I could appreciate how very few budding scientists aspired to live in trailer parks. I am happy to say that I achieved at least one of the two goals I adopted as a child. I became a scientist.

My first serious step toward becoming a scientist began in the high school physics laboratory of Dennis Selvidge, and my first venture into psychological science began with an introductory psychology course offered by Daniel McBrayer of Berry College. McBrayer brought the classic theories of Freud, Skinner, and Rogers alive with his inspiring lectures. In McBrayer's classroom, psychology was more than an intriguing collection of theories; it was a coherent, scientifically validated school of thought that could help people live happier, more fulfilling lives. In his role as my academic adviser, McBrayer convinced me that I had the potential to earn a PhD in psychology.



BRETT PELHAM

A couple of years after I earned my BS at Berry College, I enrolled in the PhD program in social psychology at the University of Texas at Austin. Here I was lucky enough to work with two of the most productive and well-respected social psychologists in our field. Bill Swann had been at UT Austin for about seven years, and Daniel Gilbert arrived as a new assistant professor the same year I began as a new graduate student. If I had any doubts about whether science was the right career for me, Swann and Gilbert quickly dispelled them. Collectively, they taught me how to apply the scientific method to important social questions, such as how people understand themselves and their social worlds. They also taught me the value of crisp, engaging scientific writing. Finally, they taught me that good science can be fun.

In the years since graduate school, I have studied topics as diverse as judgmental heuristics, depression, personality, social comparison, culture, health psychology, and most recently, implicit self-esteem. My work in all of these areas has been grounded in a firm belief that we should keep our eyes fixed on the social and cognitive basis of human behavior. For instance, in my recent archival research with my collaborators at SUNY, Buffalo, we examined how the positive, unconscious associations people have about themselves (e.g., the affection people have for the letters in their own names) influence major life decisions such as where people choose to live and what

they do for a living. We found, for example, that just as women named Virginia are disproportionately likely to move to the state of Virginia, people named Dennis are disproportionately likely to gravitate toward dentistry. In a series of follow-up studies, my collaborators and I documented that the affection people have for their own names and birthday numbers also influences their attraction to other people. Specifically, John Jones, Mauricio Carvallo, Matthew Mirenberg, and I showed that people are disproportionately likely to marry others who share their surname initials. This finding held true controlling for ethnic matching. It also held in laboratory studies where we had complete experimental control over the objective properties of people to whom others were attracted. We believe that these results are important because they suggest that a great deal of human behavior may be influenced by over-learned associations and decision rules to which people have little or no conscious access, a perspective Skinner and Freud would each have found very easy to accept.

As I think about my upcoming year as an APA visiting senior scientist, I have two closely related goals. My first goal is to bring the same enthusiasm for science to APA that I absorbed from my scientific mentors and have shared with my students and collaborators over the past 20 years. To do this, I have much to learn, which includes discovering as much as possible about the practice, public interest, and education directorates at APA, as well as the science directorate. My second objective is to communicate the value of science to the general public, ranging from the children in our schools to the legislators on Capitol Hill and the fellow scientists who enroll in APA's Advocacy Training Workshops. When it comes to these two closely related goals, I hope to achieve them both. ■

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