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Breckler Testifies Before Congress in Support of VA Funding

by Heather O'Beirne Kelly

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On March 21, 2007, APA's Executive Director for Science, Steve Breckler, testified before the House Military Construction and Veterans Affairs Appropriations Subcommittee. APA's testimony included requests for increased VA research funding, additional support for the Center for Deployment Psychology (CDP), and adequate funding for mental health care within the VA system, particularly in regard to personnel returning from Afghanistan and Iraq.

"VA psychologists continue to be at the forefront of cutting-edge research on post-traumatic stress disorder, including the assessment and treatment of PTSD," said Breckler. "…Preventing and treating PTSD has become an even more important priority within the VA given the current conflicts overseas. VA psychologists are responsible for the development of the most widely respected and used diagnostic instruments and therapeutic techniques for assessing and treating PTSD. Psychological researchers and clinicians are also playing crucial roles in the assessment and treatment of Traumatic Brain Injury (or TBI) and polytrauma, which along with PTSD have unfortunately become signature injuries," concluded Breckler.

There appears to be strong, bipartisan support for veteran's issues within Congress, and the acting Chairman of the Subcommittee, Rep. Sam Farr (D-CA), noted that he and his colleagues would continue their commitment to meeting the mental health needs of veterans. Farr was especially interested in treatment for PTSD and the Center for Deployment Psychology.

Steve Breckler

APA joined veterans groups in requesting an increase in the research account from its current level of $412 million (at which it has remained for several years) to $480 million in FY08. Veterans Affairs authorizing committees in both the House and Senate have signaled their support for this level of increase, and APA will continue to push for increased attention to research, training and care within the VA as the appropriations season gets underway. ■

SCIENCE BRIEFS

When You're 64…

by John McArdle

John McArdle is now Senior Professor at the University of Southern California (USC) where he is Quantitative Area Head. McArdle received his B.A. is Psychology at Franklin & Marshall College, M.A. and Ph.D. in Psychology at Hofstra University, conducted Post-Doctoral research in Psychology at the University of Denver, and worked (for 20 years) as a Professor of Quantitative Psychology at the University of Virginia. McArdle develops and teaches about cutting-edge statistical techniques in longitudinal life-span research. He is director of the US *National Growth and Change Study* funded by the National Institute on Aging, he won an NIH-MERIT award for research in 2005, and he teaches the *Advanced Training Institute on Longitudinal Research* for the American Psychological Association.

I was 16 years old when I first heard what I think is the only Beatles song dedicated to research on aging. Although I'm sure I was more interested in other things at that time, the verse and tempo of that song, like all other Beatle songs, was forever committed to memory – of course, psychological research has clearly shown that it helps to engage the same stimulus over 1,000 times! How was I to know that at my formative age of 16 years I was near the peak of memory acquisition skills? And who knows how many adults have lived their life with a latent anticipation of "losing their hair, many years from now" mainly as a result of having a good memory?

I now find as I approach what always seemed a far-off age, (an age the young songwriter Paul McCartney himself has recently reached) I have become more interested in the actual facts about aging. For this reason it seemed worthwhile to read a new and important book cleverly titled, "When I'm 64," a report from the National Academy of Sciences (NAS; see website below). As it turns out, this is a very useful book and well worth a look.

In the case of this book, the National Institute on Aging (NIA) made a request to the NAS to evaluate the NIA portfolio of research in "Social Psychology, Personality, and Adult Developmental Psychology." The NAS study director was a psychologist, Christine Hartel, who is also the director of the National Research Council's Board on Behavioral, Cognitive and Sensory Sciences (NRC-BCSS). The NAS committee roster was composed of leading academic researchers in aging and psychology. Led by the lead author, Laura Carstensen (Stanford University), the committee included Fredda Blanchard Fields (Georgia Tech University), Margaret Gatz (University of Southern California), Todd Heatherton (Dartmouth University), George Lowenstein (Carnegie Mellon University), Denise Park (U. Illinois), Lawrence Pervin (Rutgers University), Richard Petty (Ohio State University), Ilene Seigler (Duke University), Linda Waite (University of Chicago), and Keith Whitfield (Penn State University). Credit is also given to a host of reviewers, led by Lisa Berkman (Harvard University). From my point of view, it is hard to imagine a more prestigious and appropriate group for this complex task.

To start out, the authors recognize that the clever title may be outdated — "If the song were being written today, 74 or 84 might replace 64, but the questions would reflect the same uneasiness about aging." (p.9). In this way any relief we feel about being further away from "old age" is balanced by the data showing the large number of us who are headed for these ages (e.g., by 2030, 22% of the U.S. population will 64+ and 9% will be 84+). However, in the midst of potentially dire forecasts, the book offers a fairly upbeat discussion about aging. It shows us the many ways the experimental paradigms and practical results from Social Psychology can be used in Aging research, and vice-versa (see Blanchard-Fields, 2005).
Using prior research the authors point out the "balance between gains and losses continues to include growth as we age" (p.20). And "…older people are more likely to pursue goals and expand their horizons and generate new social contacts" (p. 24). And "adults engage in a sort of pruning process, beginning long before old age, in which emotionally close relationships are retained while more peripheral relationships are increasingly excluded." (p.25). "Even on cognitive tasks known to show age-related decline, like source memory, older people (60-75) perform better when the source concerns emotionally significant

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characteristics of people" (p.29). And "… older people are able to change their behavior. Medication adherences is better among older than middle-aged adults, attributed in part to more stable daily routines" (p.40-41). "There is considerable evidence that, with age, people grow more interested in emotional satisfaction and less interested in seeking novelty." (p.42) On the other hand, "…older people may be more likely to base evaluations on the first information presented… If decision making is somewhat stressful because of holding attitudes with low confidence, decision making will be avoided." (p.48) And "…many older adults are compromised in the cognitive domain necessary to process new information and make decisions based on that information." (p.55) And "Decisions about health care may be particularly susceptible to the influence of emotions because they often involve emotionally charged tradeoffs." (p.57) These and other helpful facts about the balance help us to deal with our current "uneasiness about aging."

The overall conclusions of the NAS committee deliberations are clearly and repeatedly stated: Based on the available evidence, the committee determined that the most promising research directions for the social aspects of aging research can be organized around four broad issues:

1. *Motivation and Behavioral Change* (Chapter 3) – How can we get older people to initiate and to maintain healthy patterns of living?
2. *Socioemotional Influences on Decision Making* (Chapter 4) – While cognitive abilities decline and impair decision making, is there stability and even improvement in automatic, intuitive, and emotional aspects of cognitive processes?
3. *Social Engagement and Cognition* (Chapter 5) – Can social relationships, social interactions, and physical activities affect cognitive functioning at older ages?
4. *The Impact of Stereotypes on Self and Others* (Chapter 6) – How can we deal with "ageism" which affects the opportunities that individuals are afforded during the later years of life?

These are big questions, and the book does not claim to answer them completely. Instead, the authors try to show how findings from several areas of psychological research provide reasonably good starting points for more nuanced answers. A big benefit of this book comes from the detailed but practical overview of each of the four topics. Although detailed results are summarized and a great set of references included (pp. 95-117), the authors consistently summarize their empirical results in common language for easy access to most readers. I have heard about many of these results, but I didn't really know all these important results or their sources. In all cases the "Conclusions" sections in each of these chapters are well crafted and easy to understand and these put the rest of the work in a practical perspective. As a result, this book tells a short but important story about aging in the United States, and this scholarly approach is in stark contrast to a popular magazine treatment of similar topics (e.g., Newsweek, March 26, 2007).

An NAS committee report is a special document. In 1863 President Abraham Lincoln, following the advice of many others (especially AAAS president A.D. Bache) created the NAS to be an independent advisory board to "investigate, examine, experiment, and report upon any subject of science or art" whenever called upon to do so by any department of the government. I highlight this here because the continued emphasis on objectivity in government funded science is an outstanding feature of the NAS work. The people chosen for an NAS committee are special as well – they are leaders in the scientific field who promise to act in an objective fashion about the problem at hand. One important NAS rule is that before each meeting each person on the committee needs to publicly state any personal gains from the outcome of the deliberations. This is important because aging is one of those sensitive topics, often filled more with fond hopes and wild speculation than with replicated findings. The NAS approach to a group consensus report sets a reasonable stage for the scientific facts of aging to emerge.

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Deadline Nears for Student Travel Award Competition

Graduate students: Are you looking for a little extra cash to get to this summer's APA Convention in San Francisco? If you are a Student Affiliate and are first author of your paper or poster accepted for presentation at Convention, you could be the recipient of a cool $300 travel grant!

The Student Travel Award competition is sponsored by the Science Directorate, and is intended to encourage predoctoral research by providing funds toward presentation travel. **Applications are due by April 2, 2007.** For more information visit the Science Directorate website (http://www.apa.org/science/travinfo.html) or contact the Science Directorate at 202-336-6000.

All members of the American Psychological Association of Graduate Students (APAGS) who present first-authored papers or posters at the Convention are also eligible for a waiver of their Convention registration fees. Information about this fee waiver will be mailed to APAGS members in April. For more information, or if you do not receive the mailing, contact the APA Convention Office at 202-336-5500 or convention@apa.org before registering.

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Another tradition at the NAS is to commission review papers by experts in areas, especially areas that require more details. The committee typically gets to hear these papers as presentations and then can include them in the final publication. In this case the committee included six papers:

1. Initiatives to Motivate Change: A Review of Theory and Practice and Their Implications for Older Adults (by A. Rothman).
2. A Review of Decision-Making Processes: Weighing the Risks and Benefits of Aging (by M. Mather).
3. A Social Psychological Perspective on the Stigmatization of Older Adults (by J. A. Richardson & J. N. Shelton).
4. Measurement: Aging and the Psychology of Self-Report (N. Schwarz)
5. Optimizing Brief Assessments in Research on Psychology of Aging: A Pragmatic Approach to Self-Report Mechanisms (by J. Krosnick, A.L. Holbrook, & P.S. Visser)
6. Utility of Brain Imaging Methods in Research on Aging (by C. Hartel & R.L. Buckner).

These papers are relatively short but the topics are interesting, informative, and add depth to each specific issue raised above. They would be useful reading for a course in any of these topics.

Of course, a small book cannot be perfect for everyone. The book generally adheres to the methodology of a broad "life-span" theoretical perspective on aging, and this is an important theme. "Gender, race, socio-economic class, culture and ethnicity are factors that affect virtually all aspects of the health and functioning of older people because of their cumulative effect across the life-span." (p.4) While this approach is provocative, it also highlights a few methodological ideas but the importance of special methodological topics in aging research is very limited (e.g., pps., 71-77, 209-218). These are especially important topics when it comes to making suggestions for new research for young scientists (p. 247).

For example, the book describes many empirical results based on comparisons of "Young versus Old" people, and points out how these are descriptively interesting. However it is also clear that this observational design does not assume a specific population of interest, and does not permit a proper inference about what would happen to any of us as we grow old. To repeat a common dictum from life-span research — "age differences between people" are what we estimate, but "age changes within people" are what we are after. As aging does not impact all persons the same way, more importance needs to be placed on the measurement of individual differences within persons who are the same age, and of intra-individual variability within a person over time (see Nesselroade, 2001).

One way to deal with this problem in cross-sectional studies is to look at people who are the same age and then study their other differences, especially "life histories" or "life courses." Another way is to use longitudinal studies to measure age changes directly within a person. Of course, due to its time consuming nature it is very hard for any researcher, young or old, to initiate a longitudinal study. However, thanks to prior support from the NIA, it is now remarkably easy for anyone to tap into archival data to answer these questions. For example, the *National Archive on Computerized Databases in Aging* (NACDA; website below) has hundreds of relevant datasets available to virtually any researcher. One important source of longitudinal aging data is the *Health and Retirement Study* (HRS; website below; see Rodgers et al, 2003; Hauser & Willis, 2005) where the newest set of psychosocial survey data can be relevant for many theoretical questions raised in this book. At the very least, a database like the HRS can be used as an initial proving ground for further ideas.

One of the biggest problems with longitudinal studies comes when researchers make inferences from correlations over time as if they were the result of controlled manipulations. The fine line between manipulated-experimental studies and observational-correlational studies is touched on in this book, but these differences seem critical to the success of aging research. Many of the most important aging findings are confounded by both cumulative advantages (e.g., only the healthy can participate) and selective survival (e.g., the participants need to be alive) so the limits of longitudinal inference require caution and even

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Call for Comments on the 2007 CEMRRAT2 Task Force Progress Report

A working draft of the 2007 Progress Report of the APA Commission on Ethnic Minority Recruitment, Retention and Training 2 Task Force (CEMRRAT2) is available on-line at http://www.apa.org/pi/oema/programs/cemrrat_report.html.

The report, *A Portrait of Success and Challenge, 1997-2005,* provides an update on the demographics of ethnic minorities in the United States, and the status of ethnic minorities within APA and throughout psychology's education pipeline.

CEMRRAT2 encourages your comments and feedback, especially those regarding the Report's findings, recommendations, and strategic actions. We also welcome information on additional activities that are consistent with the APA/CEMRRAT Plan's objectives and goals (See APPENDIX C for the current list of activities). In doing so, please identify the specific objective and goal addressed.

Please submit your comments and feedback to the APA Office of Ethnic Minority Affairs on or before April 10, 2007. These may be sent by e-mail to oema@apa.org or by fax to 202-336-6040.

EXECUTIVE DIRECTOR'S COLUMN

STEVEN BRECKLER, Executive Director for Science

IRBs, Again

In the November, 2006 issue of Psychological Science Agenda, I discussed the IRB "problem," and suggested that a grassroots effort is needed to focus our collective attention on understanding and solving the "problem." It was not the first time I raised the subject. It won't be the last.

I invited readers to send me an email, describing both positive and negative experiences with IRBs. I heard from many people, and want to share at least a few of their perspectives.

Problem, What Problem?

One set of responses challenged the very premise of my comments – that there is a problem at all. Many among us have not experienced significant difficulty with their IRBs, and some even enjoy a very positive and constructive relationship.

It is important for all of us to recognize that the "problem" with IRBs is not universal. One concern, and the reason for my comments in November, is the possibility that only a small number of "problem" IRBs exist. If this is the case, they may represent little more than squeaky wheels grabbing the majority of attention.

We can look at this in two ways. For those who have the good fortune of working with a good IRB, don't assume that all IRBs behave this way. For those who have the bad fortune of working with a dysfunctional IRB, you too should not assume that all IRBs behave this way. What we need to do, and the action for which I was advocating in November, is get a handle on the true magnitude of the "problem."

Don't Call It a Problem!

Some readers took offense at my characterization of the issue as a "problem." If researchers have

complaints about IRBs, these readers suggested that we need to understand the basis for those complaints, and whether the blame lies with the IRB, with the investigator, or somewhere else. But calling it a "problem" implies, perhaps inappropriately or prematurely, that the problem is only with IRBs, that it is widespread, and that something needs to be fixed.

Fair enough. Perhaps I should not presume that we have a "problem" with IRBs until we are able to establish, with little doubt, that a problem exists. Yet, listening to those who have complaints about their IRBs suggests that there is an issue with IRBs.

Some readers described unbelievable difficulties with their IRBs. Projects being delayed for months, revocation of approval because of inconsequential changes in informed consent forms, and IRBs challenging the scientific merit of protocols – even those that had already been reviewed by federal funding agencies and judged to be of the highest scientific merit.

If these reports were merely isolated incidents, occurring at only a handful of institutions, I would agree that we may not have a "problem" on our collective hands. But the reports are widespread, and come from dozens of institutions, reported by some of the most respected scientists in our field. To me, this qualifies as a problem.

Don't Blame IRB Members

Several readers chastised me for criticizing the hard work of IRB members. If my comments were taken this way, I sincerely apologize. One of the points made by most observers of the situation is that individual IRB members are not to blame. Instead, most instances of IRB dysfunction can be traced to the institutional context in which the IRB is operating – pressure on IRBs to serve roles that they are not meant to serve, and for which they are not designed.

I doubt that much of the IRB "problem" can be traced to individual members of IRBs. If we are to make progress in getting a handle on what is happening, we need to engage those who have first-hand experience serving on IRBs. Far from pointing a finger of blame at them, we need to engage them in the national dialogue.

Moving Forward

APA is committed to understanding what is happening with IRBs, and to do whatever we can to support researchers and IRBs in developing better relationships. APA President Sharon Brehm has created a task force to look at the matter. It met for the first time earlier this month, and it will meet again later in the year. The ad hoc Committee to Advance Research is focusing on the subject, and providing ongoing guidance to the Science Directorate in developing programs and identifying advocacy needs.

I am glad that so many readers took the time to respond to my earlier comments. Feedback is always welcome, and the fact that so many of us are willing to get engaged is a good sign that we can get to the bottom of the matter. ■

Friends of NIDA Hold Congressional Briefing on Drug Abuse Treatment

by Anne Bettesworth

On February 22, the Friends of the National Institute on Drug Abuse (NIDA) held its seventh in a series of educational briefings on Capitol Hill. Organized by APA Science Policy staff, the briefing, titled "Drug Abuse Treatment: The Blending of Research and Practice," drew an audience of over 100, including staff from a total of 50 different House and Senate offices, and was co-sponsored by 18 scientific and professional organizations.

The event focused on the issue of bridging the divide between scientific findings and their implementation and how to quicken the pace of real-world application of science-based research results. In order to accomplish this, the NIDA Research and Practice Blending Initiative has been developed, which is an innovative effort to translate research to practice and to incorporate feedback from multiple stakeholders to make the best treatments available to those who need them. Through the Blending Initiative, NIDA is able to directly address the challenge of connecting the science of drug abuse and addiction to real life practice.

The distinguished panel of speakers began with a presentation from Timothy Condon, Deputy Director of NIDA, who provided an overview of the Institute's work in this crucial area. In outlining the barriers to reaping benefits from scientific knowledge, Condon explained that, "According to a 1998 Institute of Medicine report, a 17-year gap exists between the publication of research results and its impact on treatment delivery." Part of what NIDA is doing to bridge this gap, he said, is implementing the Clinical Trials Network (CTN). Condon described the mission of the CTN as "conducting multi-site clinical trials to determine the effectiveness of drug abuse treatment interventions in diverse community-based treatment settings and diverse patient populations and transferring research results to treatment programs, clinicians, and their patients to improve the quality of drug abuse treatment throughout the nation."

The next presentation was by Gregory Brigham, who shared his experiences as a member of a Blending Team, which provides the tools necessary to access and adopt NIDA research protocols. Brigham is the Chief Research Officer at Maryhaven, a Community Treatment Program (CTP) in Columbus, Ohio, and a Research Scientist in the College of Medicine at the University of Cincinnati. He mentioned that Maryhaven joined the NIDA CTN in 2000 as a member of the Ohio Valley Node and that since then they have developed proficiencies in conducting clinical trials, as well as developing productive bi-directional collaborations within the CTN and in the broader field of addiction researchers. After noting that patient outcomes have improved due to adoption of science based practices, Brigham concluded by saying "we are off to a good start, but ongoing support is critical."

Last, Dennis McCarty, a professor in the Department of Public Health and Preventive Medicine at Oregon Health Sciences University, gave a presentation discussing his work as Principal Investigator for the Oregon Node of the CTN. By conducting randomized clinical trials of emerging pharmacological and behavioral therapies, he and his colleagues have found that combinations of buprenorphine and naloxone can be used safely in community treatment settings, where it appears especially effective in patients dependent on both alcohol and opiates. Trials of behavioral therapies likewise showed

Timothy Condon

positive results. Studies of motivational interviewing and motivational incentive therapies improved retention in treatment, and the former reduced cocaine use in patients being treated with methadone. McCarty also noted benefits that participating treatment centers receive, some of which include exposure to emerging therapies, staff training, and participation in research.

We are indebted to Representatives Kennedy and Ramstad for their leadership of the House Addiction, Treatment and Recovery Caucus and to their dedicated staff, Rachael Bornstein and Andrew McKechnie, for their assistance with event logistics. The Friends of NIDA will continue with its educational briefing series on Capitol Hill by hosting another event in late spring or early summer focused on co-morbidity. ■

2007 APA Convention Register Now!

The 2007 APA Convention website is now open for meeting registration and hotel reservations. Book early, as hotel rooms in the headquarters hotels will go quickly! The Convention will take place August 17-20 in San Francisco, California. The deadline for obtaining the lower advance meeting registration rate is July 2. Go to www.apa.org/convention07 for more information and the online forms. Make your plans now!

NIH Director's New Innovator Award

by Nicolle Singer

On March 9, 2007 NIH Director Elias Zerhouni announced the **NIH Director's New Innovator Award** program. This new awards program is a NIH Roadmap Initiative designed to stimulate highly innovative research projects in the behavioral and biomedical sciences. New investigators who received their doctoral degree in 1997 or later and have not yet obtained an NIH R01 are eligible to apply. The application process emphasizes innovation and the potential contributions of the researcher, rather than preliminary data and past achievements. The application deadline for this award is May 22, 2007 and the earliest anticipated start date for a funded project is late September.

According to the New Innovator Award announcement, "This new program is intended to address both the goals of stimulating the application of innovative research approaches to important biomedical and behavioral research problems and nurturing unusually creative investigators at the early stages of their research careers."

The New Innovator Award for early-career researchers compliments two existing NIH Roadmap Initiatives: the Pioneer Awards and Pathway to Independence Awards.

Zerhouni recognizes that novel and creative research is the pathway to scientific breakthrough, and has therefore created a series of awards to encourage innovation. The **NIH Director's Pioneer Award** was introduced in 2004, and funds research projects that have strong potential but are too novel to have yielded widely published results. They are open to investigators at any career level, regardless of whether past funding has been received from NIH. Applications were due in January for this year's program.

Similarly, in 2006 Zerhouni announced the **NIH Pathway to Independence Awards**, to facilitate the rocky transition from being a mentored postdoctoral scholar to being an independent researcher directing a research lab. Applications for this program are accepted three times per year for review cycles.

All three of these awards fund what is generally considered to be high-risk research. Namely, projects that "may be too novel, span too diverse a range of disciplines, or be at a stage too early to fare well in the traditional peer review process." One of the three broad goals of the NIH Roadmap is to support research that would not normally be supported through existing NIH granting mechanisms, but has great potential to contribute to health and well-being. More information about the Roadmap can be viewed at nihroadmap.nih.gov ■

Apply for Neuropsychology Scholarship

The American Psychological Foundation (APF) will award two $2,500 Benton-Meier Scholarships in neuropsychology in 2007. Applicants should submit a letter, co-signed by their faculty mentor or director of training, detailing research accomplishments, a budget for the proposed course of study, and the purpose for which the scholarship will be used. Applications should be submitted online at http://forms.apa.org/apf/grants/. **The deadline is June 1**.

For more information, visit www.apa.org/apf.

Family Research Consortium IV Invites Applications for its 4th Annual Summer Institute: "Riding the Currents: Families, Mental Health, and Economic Change"

This annual Institute promotes scholarly exchange and collaborative research related to families and mental health. The Institute is motivated by the belief that significant advances in the field can be facilitated by a forum that allows for dissemination, evaluation, and discussion of important new findings and new developments in research design, methods, and analysis. A PhD or equivalent terminal degree is required for acceptance to the Summer Institute.

June 21-23, 2007
Washington Duke Inn
Durham, North Carolina

For complete details about this program, including featured speakers and the online application form, please visit the consortium online at http://www.semel.ucla.edu/frc4/

Application deadline: Friday, April 13, 2007
Attendance is limited, so make sure to get your application in by the deadline. Inquiries may be directed to frc4@ucla.edu

Psychological Science in Aviation and Space

by Elizabeth Hoffman

Earlier this month, as Congress began consideration of the President's FY08 budget for the National Aeronautics and Space Administration (NASA), Science Government Relations staff attended a two-day aviation human factors conference in San Antonio, Texas. The purpose of the conference was to build bridges between the human factors/ sciences research communities, and aerospace educators and flight operations departments and organizations. Representing aerospace science and industry, presenters highlighted strategies to reduce vulnerability to aviation accidents. Morning Star Aviation Safety, LLC sponsored the event, and Captain David Blair, Morning Star's Founder, is already gearing up for the second annual meeting in 2008.

You may wonder what airplane accidents have to do with psychological science. Human error, it turns out, may be involved in as much as 60% - 80% of all aviation accidents, and scientists have turned to cognitive psychology – error detection, working memory capacity, and shifting attention, for example – to understand human performance limitations in flight. Society's demand for reliability, especially in aviation, is nearly unlimited. The volume of airline flight operations is growing and is projected to be much higher within the next decade. Even if current accident rates are maintained, this growth will entail more fatal accidents each year, and with increasing use of large airliners the death toll from a single accident can be very large. Thus, it is crucial to understand the factors that make skilled pilots, controllers, dispatchers, and mechanics vulnerable to error, to develop ways to reduce vulnerability to error, and to defuse errors to prevent them leading to accidents. Cockpit operations are becoming increasingly automated, and the FAA plans a next generation of air traffic control that will be vastly more automated than the current one. But the history of automation (and other technology) is that it can either enhance system performance or undercut the performance of human operators (as occurred at Three Mile Island), depending on how well the automation is designed to match human operating characteristics.

Conference participants Terry Allard, Program Director for Human Factors Research and Engineering at the Federal Aviation Administration (FAA), and Judith Orasanu, Research Scientist at NASA Ames Research Center, discussed sources of capacity limitations in flight, such as air traffic control workload, stress, flight deck design/procedures, and inadequate shared mental models ("team cognition") between pilots and first officers. In his presentation concerning the limits of expertise, Key Dismukes, also from Ames, and author of The Limits of Expertise: Rethinking Pilot Error and the Causes of Airline Accidents, discussed the challenge of managing concurrent tasks, the inherent cognitive limitations in switching attention, and the vulnerability to prospective memory errors when individuals are interrupted, required to defer intended actions, or required to perform habitual actions out of the normal sequence. In these situations even the most skilled of pilots are vulnerable to forgetting to perform intended actions, even if those actions are highly practiced.

Most of these cognitive limitations create small bumps in our normal day-to-day activities and, one may argue, simply reveal our humanness. But in aviation and space flight, medicine, and many other work domains, errors associated with these limitations sometimes have fatal consequences.

Dismukes discussed two of the most important safeguards the airlines use to prevent and catch errors: checklists and monitoring. Monitoring refers to requiring each pilot to carefully check the actions of the other pilot and to keep track of the status of the aircraft's automation, configuration, and flight path. Although these two safeguards save many lives every year, they sometimes break down, for much the same reasons that humans are vulnerable to prospective memory errors. Dismukes and his colleague Ben Berman are collaborating with airlines to observe flight operations in the cockpit and to develop ways to increase the reliability of checklists and monitoring.

Aeronautics research (including human factors) has long been a cornerstone of NASA (Aeronautics is the first A in the acronym), and universities have depended on NASA funding as the primary source of funding in this domain. But the agency's Aeronautics program, administered by Lisa Porter, is being restructured to meet President Bush's focus on space exploration, and the President's proposed FY08 budget diminishes the spending power of the aeronautics program by over 40% since 2004. Further, the Aeronautics program has been re-oriented to emphasize disciplines such as aerodynamics over human performance and operational issues. These cuts have already forced NASA centers to substantially cut jobs and university grants in aeronautics research, especially in the area of human performance.

The Administration has undertaken an extremely expensive program to send humans to the Moon and then on to Mars, but without increasing NASA's budget; consequently the agency's research programs are suffering. (Not just human performance research; earth observation research is also declining.) As Congress considers the President's FY08 budget proposal for NASA, APA Science Government Relations will continue to lobby Appropriations staff in both chambers for greater investment in aeronautics research, especially research on human performance issues. ■

SMEP Minority Student Conference

The Society of Multivariate Experimental Psychology (SMEP) announces the fourth annual conference designed to acquaint students from underrepresented minorities with the field of quantitative psychology. It is hoped that some will find the field exciting and will choose to explore further. Cooperation with American Psychological Association programs is enhanced by scheduling our conference immediately before APA's annual convention, facilitating student attendance at both.

The three conference days (August 14-16) will expose students to exciting work presented by outstanding scientists and give the students ample opportunities to interact with these potential mentors. Some time will be devoted to instruction, oriented primarily toward understanding of important concepts. Students will have some opportunities to present their own work for criticism and suggestions.

San Francisco is one of the favorite convention destinations in America. It is also a high cost area and so we are still negotiating possibilities. For the APA portion of the time, we have made arrangements for rooms at the Mark Twain Hotel, 345 Taylor Street, 6 blocks from the APA headquarters at the Moscone Center, 1 block from the Hilton, walking distance from most convention destinations. Wireless access is free at the hotel.

For further information, send email to smep_conference@mindspring.com. Applications should be made on line at http://www.psychologicalresources.com/SMEP_Minority_Student_Conf_App.htm
and submitted **on or before Sunday, April 15,2007**.

Upcoming Deadlines for Advanced Training Institutes (ATIs)

Nonlinear Methods for Psychological Science
June 11-15, 2007
Application Deadline - March 26 or until seats are filled
This workshop teaches non-linear methods for behavioral science, providing each participant with the first-hand experience of having analyzed data for nonlinear structure. On the first day of the workshop each individual generates data that they will learn to analyze during the ATI. Continuing access to the software that will enable them to perform further nonlinear analyses is provided by instructors at the conclusion of the ATI. Instructors include Guy Van Orden, Michael Riley, Kevin Shockley, John Holden, and special guests.

Performing Web-Based Research
July 9-13, 2007
Application Deadline - April 2 or until seats are filled
This ATI trains psychologists how, why, and why not to perform web-based research and data collection. Instructors provide background on internet-based research and the ethics of web-based research. Other topics include longitudinal web methods, the use of large-scale shared databases, web panels, and the recruitment and retention of online participants. Website creation is introduced using basic html and the Authorware software package, as needed for each individual's project. Each attendee should come prepared with a small web project that they would like to work on during the week. Instructors include John Eustis Williams, Anja Göritz, Dietmar Janetzko, and William Schmidt.

Geographic Information Systems for Psychological Research
Pre-APA Convention: August 16, 2007
Applications Accepted Until Seats Filled
This program will begin with an overview of GIS technology and a thorough description of the use of GIS in psychological research with plenty of examples. A few established psychologists who use GIS in their research will speak about the strengths of this methodology and its contribution to their investigations. When possible, demonstrations of GIS technology will be matched to the research interests of attendees as described on the registration forms. Instructors for this ATI include Reginald Golledge, Michael Goodchild, Daniel Montello, and Stephen Hirtle.

To apply or for more information, visit the ATI website: http://www.apa.org/science/ati.html

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newer methods of analysis (e.g., McArdle, et al, 2000; McArdle et al, 2006). These problems of inference are not solved by the publication of one small experimental manipulation after the other, but the accumulation of small studies may allow sturdy results to follow. Hopefully resources such as the NACDA files can continue to be a repository for collecting many experimental studies. The availability of the data from the ACTIVE clinical trial of cognitive training (see website below, and Wolinsky et al, 2006) is a good example.

SUMMARY

This book is a wonderful resource for people wanting to understand the current field of aging research with regards to Social Psychology, or vice-versa. These topics certainly represent the future needs of aging research, and it is likely these recommendations to the NIA will become funding priorities. This book is helpful as a source of references to current research, but I think it will work best in provoking ideas about specific researches. The authors frequently mention "an entirely unexplored question that is worthy of systematic evaluation" (p. 79), and these are the important parts of the book. My additional advice is that I hope young researchers will pay attention to longitudinal and experimental design inferences, and use existing national databases to test out their best ideas. Because this book is both a description of research findings and a generation of research ideas, it will be a benefit to both old and young researchers alike!

After all is said and done, we are all inevitably getting older. It is very good to hear that there are some possible "gains due to age" amidst all the "losses due to age." The social aspects of aging highlighted in this book go a long way towards dealing with the facts of aging we need to live with in the near future. I hope that "When You're 64" someone "will still need you, will still feed you," or at least this will be a verse that people in your life will think they remember.

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