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Human Capital Initiative Becoming Federal Priority

High-level federal science policy forum incorporates APS-initiated research plan

Washington, DC, November 21—The Human Capital Initiative (HCI), which began as a national behavioral science agenda (faithful *Observer* readers will remember), was one of a selected number of priorities under consideration at a recent high-level federal science policy forum here. This is yet another milestone in the HCI's increasingly widespread acceptance by Congress and federal science agencies since being developed under the auspices of APS three years ago.

There are signs that the HCI will advance further, possibly to become one of the "cross-cutting" research initiatives that are supported by several agencies. The HCI also is being expanded by the National Science Foundation (NSF) to become a Foundation-wide priority.

Cross Cutting and Budgeting Cutting

Close to 500 science leaders from academia, government and industry—including a number of psychologists—took part in the event. Speakers included Vice President Al Gore, National Institutes of Health Director Harold Varmus, Surgeon General Joycelyn Elders, Council of Economic Advisers Chair Laura Tyson, and several other senior Clinton Administration officials. The meeting was described by participants as some-

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Smithsonian Lecture Series Is a Smashing Success

APS co-sponsors popular Campus-on-the-Mall lecture series on Nature/Nurture

id you know that the heritability of intelligence *rises* with age, while the heritability of blood cholesterol level *falls* with age? These were among the arresting scientific discoveries described at an eight-week fall Smithsonian Institution lecture series on genetic and environmental factors in human development and behavior.



Organized by the Smithsonian and coordinated by APS, the *Insights Into Behavior* course drew nearly 120 registrants, including about a dozen APS members in the Washington, DC, area, to hear world-recognized behavioral geneticists explain the convergence of environmental and genetic factors on behavior.

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Who's Minding the Store?

The Role of the Generalist In a World of Specialists

Marilynn Brewer Ohio State University



As in previous years, the APS Board of Directors held its winter retreat meeting in early December, a time well suited to reflecting on the activities of the year just past and looking toward the future. Any discussion of long-term planning for our society necessarily involves assessing the role of a generalist organization working on behalf of a discipline that encompasses the study of behavior from the molecular to the social levels of analysis. What *is* the mission of the generalist in this world of scientific specialization?

APS Niche

Although the differentiation of scientific disciplines evolves gradually over time, APS entered the scene at a point when subdisciplinary specialties in psychology were already well established and represented by existing scientific societies at both national and international levels. Most of these societies serve well the functions of scientific communication and community building that are vital to the continued development of the field. But the question faced by the founders of APS was who is looking after the interests of the enterprise as a totality? The niche to be filled was not another organization structured around the established specialties but an organization whose sole purpose was the promotion of the discipline as a whole.

Growth, Function, and Mission

The growth of structure and function of the APS has kept faithful to this pandisciplinary mission. Our highly effective advocacy efforts in Washington represent all of the behavioral sciences; our annual convention is designed to provide a forum for cross-specialty communication; and our journals (including the newly proposed journal, *Teaching of Psychological Science*) are discipline-wide in their coverage. In reviewing these most visible manifestations of the activities and purposes of APS, the Board reaffirmed its commitment to this generalist perspective. I, for one, am convinced that this is the vision of the role of the American Psychological Society that should carry us into the next century.

APS and a National Agenda

Nothing epitomizes our pan-disciplinary efforts like the Human Capital Initiative (HCI), a framework for a research agenda in the behavior sciences that crosses all areas and levels of analysis in our field. As an advocacy effort on behalf of basic and applied research in the psychological sciences, the HCI has been wildly successful. It appears in report language in both the budget appropriations and authorization reports of the U.S. Congress, has been the focus of a meeting among heads of major private foundations, and has been embraced and instituted by the National Science Foundation as a Foundation-wide initiative. (See story on page 1 on the National Science and Technology Council.)

But the Human Capital Initiative is more than a political document; it is a scholarly achievement as well. Its content demonstrates that a cloth can be woven from the many threads of psychological science, and that the whole can, indeed, be more than the sum of its parts. I encourage all members of APS to read the Human Capital Initiative document itself, as an internal communication reminding us of our common purposes, shared perspectives, and disciplinary identification. This is what APS will try to represent on behalf of the generalist in all of us. Happy New Year!

NIMH B/START Grants Fulfilling a Mission

\$1.12 million program first step to stem the "graying" of research psychology

hirty-one young psychologists are having their first taste of life as principal investigators (PIs) thanks to a new National Institute of Mental Health (NIMH) research funding program. They owe their new PI status to "Behavioral Science Track Awards for Rapid Transition," or, simply, the B/START program.

The 31 grants of \$25,000 each (plus indirect costs for university overhead) totaled \$1.12 million in the fiscal year recently ended. Because of the overwhelming response to this new program, NIMH sources say they are seeking at least \$1.6 million for B/START in fiscal year 1995, and perhaps much more.

The program was initiated by NIMH largely in response to APS efforts to help shore up a loss of young investigators—as documented in 1988 by the former Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) (see May 1992 *Observer*). Among other things, APS was instrumental in generating support for the program in

congressional Appropriations Committee, and worked with NIMH to put in place an advisory committee to more carefully examine the loss of young investigators. This in turn led to B/START funding.

"We just felt there needed to be a program aimed right at the problem." said APS Executive Director Alan Kraut. "Bright new PhD's in psychology were not receiving enough NIH support. The perception was building that new PhD's don't have a fair chance. With a few years and some more funding, B/START ought to turn that perception around."

... it's the simplest way to learn how to write grant applications and get grant money.

> STEPHEN KOSLOW NIMH DIVISION OF NEUROSCIENCE AND BEHAVIORAL SCIENCE

choline levels. Tracy said the grant provides needed seed money and will probably make it a little bit easier to get other grants.

Jump Start

The B/START program was designed to counteract a trend in the 1980s that threatened to make young behavioral researchers a sort of "endangered species." It puts these smallest of NIMH grants within reach of many young researchers and gives a jump-start to investigators who might not be quite ready to deal with the more formidable application procedures of bigger funding programs.

"The short application form and quick turnaround lets new researchers put their best ideas forward and get them tested in the peer review system—it's the simplest way to learn how to write grant applica-

tions and get grant money," says Stephen Koslow, director of the NIMH Division of Neuroscience and Behavioral Science that administers the program. "It's an outstanding way to help new investigators get started in the grant business." Koslow also expects the effects of B/START to revitalize NIMH programs by generating an infusion of young researchers.

APS has been plugging for special efforts of this type for several years, warning lawmakers and federal grant program directors that more than a decade of sharp declines in both the number of grants received by young investigators and in young people's share of the total of grants could gravely harm America's behavioral research capabilities for many years ahead.

"There have been dismal numbers showing not enough junior people coming into the pipeline even to apply for grants, never mind actually getting them," said APS Fellow Toni Antonucci of the University of Michigan Institute for Social Research. Antonucci was part of the original APS/NIMH advisory committee (along with Richard Bootzin, Rachel Clifton, James Jones, Charles Kiesler, Alan Kraut, and Georgine Pion) that had advocated for young researcher programs

B/START Class of '94

Needless to say, the new grant recipients rate B/START highly. (See box, page 10.) "It's a very important step in my career, and it certainly gives me more confidence to go for the big ones next time," said 29-year-old APS member Kathy Johnson of Indiana University. Johnson is studying how experts develop knowledge. Her specific research involves children's and adults' knowledge of dinosaurs and its generalizability to knowledge of shore birds. Children know far more about dinosaurs, she says, and the more they know, the more easily they can generalize to the domain of shore birds. So far, the study tends to refute a widely held notion that all expert knowledge is domain-specific.

A 30-year-old APS member, James Gross, who received his PhD at the University of California-Berkeley in 1993 and just began teaching at Stanford last fall, says, "The grant was a nice vote of confidence in my research program, and I think it will be very helpful as I begin my career here at Stanford." His research project examines the impact on mental health and/or physical health of emotion regulation. Using filmed emotion-laden events, Gross is studying the effects of two distinct types of emotion regulation while subjects are exposed to the emotional stimuli: (1) shutting down cognitions and not feeling during exposure, and (2) feeling but not expressing the emotion.

APS member Joseph Tracy, a psychologist at the Medical College of Pennsylvania who at age 40 is probably the elder statesman of the B/START "Class of '94," received his B/START grant to study smoking among persons with schizophrenia. In part, his goal is to assess the role of the cholinergic system in cognition. He hypothesizes that schizophrenia patients are driven to smoke more than others because of their chronically low levels of acetylcholine and by neuroleptic medications that further deplete acetyl-

SEE B/START ON PAGE 10



NIDA Director Stresses 'Science Over Ideology' for Drug Abuse Policies

NIDA seeks advice from 30 diverse organizations that are key to solving national drug abuse crisis

f Alan Leshner has his way, the National Institute on Drug Abuse (NIDA) will "lead the nation in bringing the full power of science to bear on drug abuse and addiction." Leshner, a psychologist who became director of the institute in the spring of 1994, articulated this goal just before Thanksgiving during a day-and-a-half "summit" with the 30 or so groups that comprise NIDA's core constituency.

The meeting brought together senior representatives of organizations involved in drug abuse research to provide advice on treatment effectiveness, prevention, service delivery, AIDS, and the "infrastructure" of the drug abuse research enterprise.

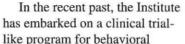


Capaldi stresses importance of research on fundamental processes to inform prevention and treatment efforts.

APS was represented by Board Member Elizabeth Capaldi, Professor of Psychology at the University of Florida in Gainesville, and Sarah Brookhart, APS's Director of Government Relations.

Replacing Ideology

Leshner indicated he intends to expand NIDA's behavioral science portfolio as well as other areas of research in an overall effort to "ensure that science replaces ideology" as the basis for public policies on drug abuse treatment and research. Psychology already is one of NIDA's largest constituent groups. In fiscal year 1992, nearly 300 of the institute's 1,300 grants were to psychologist PI's (principal investigators), for over \$86 million (see the September 1993 *Observer*).





NIDA Director Alan Leshner addresses meeting of 30 organizations that are central to NIDA's mission.

interventions, and has funded the development of a Human Capital Initiative project to help identify behavioral science priorities in the area of drug abuse research. Nevertheless, there are areas where NIDA's behavioral research activities should be increased, Capaldi said at the meeting. Out in the field, "there is a perception that if you're not using a drug in your research, you have a hard time getting funded," she told the group.

"Psychopharmacology is fairly visible at NIDA, but [the Institute] is less well known for supporting research on basic psychological processes," said Capaldi. "We need to know more about motivation, why people take drugs in the first place. Is it issues of cognition, or peer pressure?" She urged NIDA to support research on the interactions that take place at basic scientific levels and asked that the Institute establish a study section on basic behavioral research.

A Change in Thinking

"Most of society sees drug abuse and addiction as social issues, not in terms of health," said Leshner. "We need to change the way we think. Drug abuse is a preventable behavior, a treatable chronic and relapsing disease." The NIDA meeting was designed to help the Institute reframe its research agenda to reflect this approach and to strengthen ties among the different organizations whose interests ranged from basic science to specific drug abuse treatment methods (e.g., methadone maintenance).

Tim Condon, chief of NIDA's science policy branch and organizer of the meeting, said "this the beginning of what will be an ongoing exchange with the widest possible range of organizations representing those who conduct our research and those who use our research. We're delighted with the success of this first very productive meeting."

Additional NIAAA Grantees

Listed below are two APS Charter Fellows who received research grants as Principal Investigators (PIs) in fiscal year 1993 from the National Institute on Alcohol Abuse and Alcoholism (NIAAA). These two should have been listed in the November 1994 *Observer* article titled "Psychology: A Potent Force at NIAAA" along with the other 300 psychologist grantees we had listed at that time. In fact, we are a little embarrassed, as the two researchers have had continuous funding from NIAAA for over 23 years, and their project even predates NIAAA's founding by a few years! This project may be the longest running project at NIAAA. Here are the two omitted PIs' names, affiliations, and grant title:

Nelson Butters, Univ. of California-San Diego School of Medicine, and Laird S. Cermak, Boston Univ. School of Medicine, "Cognitive Deficits of Chronic Alcoholics."

Consensus on Psychopharmacological Treatment of Mental Retardation

Conference to be held in June at Ohio State University

here are from three to six million
Americans with mental retardation
(MR), and they rank among the
nation's heaviest consumers of
psychoactive drugs. From 50 to 65
percent of persons with MR who live in
congregate care facilities are on
psychoactive medications. And for MR
adults living in the community, the rates
are 40 to 45 percent, according to Steven
Reiss and Michael Aman—both psychologists at the Nisonger Center in Columbus,
Ohio—who are planning a consensus
conference on prescription practices.

Research Lacking

In spite of these high percentages, there has been a dearth of research to guide professional practitioners prescribing the drugs for persons with MR, notes Reiss, who is director of the multi-disciplinary Nisonger training and research center at Ohio State University.

Many professionals have been relying largely on their own individual experience when prescribing antidepressants, antianxiety drugs, antiepileptics, beta blockers, opiate blockers and a host of other powerful psychoactive medications for MR patients. Most have little or no training in MR and have not even had opportunity to learn much about how their colleagues make their decisions about drugs for mentally retarded patients, Reiss says.

"There hasn't been anything approaching a systematic, sustained effort to understand the use of psychoactive drugs in mental retardation. So you don't have research, and you don't have much in the way of training, but you do have increasing use of the drugs," says Reiss.

Promoting a Drug Knowledge Base

About three years ago Reiss and Aman began to search for ways to make the knowledge base grow apace with increased usage. Sharon Davis, national director of the ARC (a 150,000-member advocacy society formerly called the Association of Retarded Citizens), joined them in initiating and coordinating a project of broad international scope.

The culmination of their effort is a Consensus Conference on Psychopharmacology in Mental Retardation that will meet June 15-16 on the Ohio State University campus.

The conference will bring together more than 100 leading MR/pharmacology specialists from the United States, Canada, Britain and seven other countries to undertake the last phase of producing a handbook delineating appropriate indications of psychoactive medications for people with mental retardation. It will be a compendium of current knowledge, best practices, and needs for training and research.

Handbook

The handbook will be distributed worldwide through this network of MR specialists,

and Reiss
expects it to
be a major
force in
improving
drug therapy
for MR
patients and
reducing
inappropriate use and
overuse of
psychoactive



Steven Reiss is a co-chair of upcoming consensus meeting.

drugs. He notes that many such drugs may interfere with learning and make it even more difficult for children with developmental disabilities to acquire basic skills and knowledge. And all too often drugs are used to control patients rather than enhance their capabilities.

There are also particular problems and pitfalls involved in using psychoactive drugs with persons who can't give verbal feedback on improvement or discomfort, as is often the case in the MR field. Another issue of special concern to Reiss is whether persons with low-level cognitive capabilities actually express depression, anxiety, and other psychiatric disorders in the same way as normal persons. He says there is "serious question whether standard diagnostic criteria for mood disorders, for example, are really applicable to persons with mental retardation." Reiss questions whether one can identify schizophrenia in people with MR, as schizophrenia affects certain capabilities that may not even be exhibited in MR patients. He notes that panic disorders are far rarer in people with MR than in the general population. Moreover, people with significant cognitive disabilities do not respond to psychiatric medications in ways that can be predicted from knowledge of the effects on the general population, Reiss

Step-by-Step Consensus

For each medication, the MR psychopharmacology handbook will indicate the consensus opinion regarding appropriate uses, inappropriate uses, and side effects. The degree to which the consensus opinion is supported or not supported by scientific evidence will be noted for each drug.

Although consensus opinion is a standard approach in clinical policy development and exhibits greater reliability than the opinion of any individual professional, it is not necessarily valid in all cases. Ultimately, scientific research is needed to indicate the effects of a given medication with adults and with children in MR, the conference organizers emphasize.

Twenty-two committees have been collecting data and drafting sections of the forthcoming MR pharmacology handbook for more than two years. The topical

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what disorganized; in fairness this can be attributed in large part to the Administration's attempt to include a wide range of perspectives in the discussion of federal research priorities.

On the other hand, the meeting somewhat reflected the organizational maze through which issues must pass in order to become priorities. Just keeping track of the names and acronyms is a daunting task: The forum was titled "Meeting the Challenge:

Health, Safety, and Food for America;" it was convened by the White House Office of Science and Technology Policy (OSTP) on behalf of the Committee on Health, Safety and Food R&D (CHSF), one of nine committees of the National Council on Science and Technology (NCST), a panel of federal agency officials not to be confused with the President's Committee of

. . . behavioral science was treated better and more fairly at this particular meeting than at other national funding priority meetings that I have attended.

JAMES BLASCOVICH SUNY-BUFFALO

agenda, and then by serving as a reporter for the breakout session in which the HCI was discussed.

Referring to a quote from naturalist John Muir, who wrote that "whenever you start out to study one single thing, you find that it is hooked to everything else in the universe," Hakel said in his paper that "Muir's observation is especially apt today in the deliberations on priorities for research and development on health, safety and food. No single discipline alone can solve the challenges facing the nation. Multi-disciplinary collaboration

and integrative research are needed now more than ever before. And the roles of behavioral and social factors are more evident than ever."

But bringing together people from different disciplinary backgrounds is not always easy, noted Frederick A. King, recently retired director of the Yerkes Primate Research Center and a forum participant.

"To expect biomedical scientists to sit down and immediately come up with any kind of consensus with social scientists is expecting a great deal," he said. This apparently was true in some of the discussions about human capital. Nevertheless, King and others noted that behavioral science was more visible and more influential in this meeting than at any previous time.

Advisors on Science and Technology (PCAST), which is comprised of private-sector members. The CHSF had five subcommittees, including one on Biomedical and Socio-Cultural and Behavioral Research (BSB), which originated the priorities that were discussed at the forum. Whew!

This forum, and similar events, are taking place against the political backdrop of proposals by the incoming Republican Congressional majority that pose substantial threats to federal



Petersen

R&D. Those proposals, which are part of the "Contract with America," include reducing the rate of growth of NSF, reducing the indirect-cost rate for federally supported research, and reducing spending for the cross-cutting High Performance Computing initiative, among a number of other science-related items. It is not clear what impact these proposals will have on science in general or on behavioral

science in particular, but it is hoped that the policy meetings will help defend against what some see as an anti-science agenda of the new majority in Congress.

Universal Connections

Behavioral research was a frequent theme in remarks to the plenary sessions of the forum. For example, Varmus noted the need for better neuropsychological assessment tools, the need to understand the motivation issues in patients' compliance (and non-compliance) with prescriptions and immunization recommendations, and the need for better data dissemination and use in the Physician Data Query system. "These three clearly are human capital issues," observed Milton D. Hakel, professor of psychology at Bowling Green State University and chair of the HCI Coordinating Committee. Hakel played a central role in the recent Washington forum, first by providing a white paper on the HCI that was used in early stages of developing the forum

More Than Lip Service; Multi-agency Initiatives

James Blascovich, professor of psychology at SUNY-Buffalo and one of the co-authors of the original HCI, said "behavioral science was treated better and more fairly at this particular meeting than at other national funding priority meetings that I have attended. Psychology as well as other behavioral, social, and



Blascovich

economic sciences were well-represented. Hopefully, our participation will cause the powers that be to give more than lip service to behavioral and social science research. We will see."

"The HCI clearly has begun a life of its own," said Blascovich. "Agency representatives seem particularly high on it. It also has the potential of becoming, as our breakout group recommended, a major funding initiative, perhaps as big as Global Change or the Decade of the Brain," he added, referring to existing multi-agency science initiatives. That was very gratifying," said Blascovich. "On the other hand," he cautioned that "many other disciplines are trying to claim and refocus the initiative in their own interest. Psychology will still have to watch carefully and push where needed."

Although NSF is taking the lead on the HCI, the fact that the HCI even "was on the forum agenda is a sign that it will be supported by several agencies," said Anne C. Petersen, deputy director of NSF. This is already happening in at least one area,



A Career in the Commissioned Officer Corps of the US Public Health Service

Psychologists find niche working for uniformed public health corps

ttention psychologists! Are you looking for a career that offers you a choice of adventurous *or* staid assignments, with extensive travelling or staying put, all within a framework of long-term economic security? Consider a career as a commissioned officer in the United States Public Health Service (USPHS)! No, you need not be a physician or a nurse; the Scientist category of the Commissioned Corps includes PhDs from a wide variety of health-related fields, including psychology. Here's a sampling of career paths of several psychologists:

Commander Frank J. Winn, Jr., an APS member, joined the Corps after spending a year as a visiting assistant professor at the University of Texas-El Paso following his graduate study in developmental psychology. He was detailed to a billet (i.e., an assigned military position) in the Coast Guard, and was stationed in New York City at Governor's Island. (The Coast Guard obtains all of its health professionals, excepting physicians assistants, from the PHS, while the other armed services may have *some* PHS officers detailed to their programs on a case-bycase basis.)

Inroads

Winn received clinical training at Belleview Hospital, coursework at the Payne Whitney Psychiatric Institute, and, while still a lieutenant, was put in charge of the psychiatric service at Governor's Island. Under his command there was a psychiatrist, a social worker, and a psychiatric nurse. "In the clinical billet," he says, "I saw every category in DSM-III/R." While in that job, Winn became the first non-MD allowed to testify at a Veterans Administration Medical Disposition Board, a practice that later became standard with the Department of Defense.

After New York, Winn was detailed to the Coast Guard at Cape
May, where he worked on enhancing the skills of recruits. He worked on "shoot/don't shoot" training for boarding parties patrolling the coast for drug smugglers, and assessed sailors for their fitness for long periods of isolated duty in remote LORAN (long-range aid to navigation) stations (in the days before satellites and automation took over navigation functions).

Find a Job

One unique feature of the Commissioned Corps is the need to find one's own billet, once a given assignment is completed. Unlike the typical military process of transferring personnel to new positions, Corps officers are not simply transferred to an existing vacant position. Instead, they must actively seek out or create a new billet to transition to, if and when their current billet expires. This can occur on a relatively frequent basis by normal employment standards.

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with the Department of Housing and Urban Development that is now providing support for violence-related research.

Proud Parent

Seeing how well the HCI was received at the forum, APS Board Member Kay Deaux, who also serves on the HCI Coordinating Committee, felt like a proud parent. Her reaction was similar to "what a parent must feel like having been around at the birth of an infant, and then seeing that child as an adolescent several years later as someone



Deaux

who is grown up, and who has friends and acquaintances you didn't introduce them to, but whom you approve of."

"The more people recognize the importance of behavioral and social science research, the better off we are," said Deaux, who is Professor and Executive Officer of the doctoral program in

psychology at the City University of New York-Graduate School. "I feel there was a great deal of recognition among panelists and speakers" at the forum. For example, she repeated a comment by Jane Menken from the University of Pennsylvania who, in speaking about population issues, said. "'technology is nice but motivation is critical.' These are the ways we would like people to think about this and other health issues," said Deaux.

Private Sector Under-investment

Tyson said at the meeting that the Clinton Administration's R&D priorities would be heavily influenced by judgments of where the private sector will under-invest. Hakel told the forum that "human capital" is one area where this is likely to occur.

As we have reported in the past, since its inception, the HCI enjoyed significant support from several Democratic leaders in the House and Senate. As for the Republican election sweep, "no one should expect that the nation's human capital problems will simply disappear," said Hakel. "The need for fundamental behavioral research is clear. Research alone won't solve the problems, but neither will they be solved without research." **S.B.**



The Research of a B/START Grantee

Here's a very brief sampling of some of the research being funded by the new NIMH B/START program.



JAMES GROSS - Emotion Regulation

Gross's research in emotion regulation will help resolve two main bodies of research literature that are at odds. One therory suggests you should shut down negative emotions before even feeling them for the sake of preserving mental health, as in depression. Another suggests that suppression and repression of emotions lead to poor physical health outcomes.

At Stanford University, Gross will expose his subjects to well-validated film clips that reliably elicit a single negative emotion, disgust. He will ask one group of subjects to "shut down" their emotions by using "cognitive controls" or "intellectualization." A second group ("emotion suppression") will be instructed to "... feel the emotion but hide the expression of it from other people." A third (control) group will be instructed to "Watch the film and let whatever happens happen."

Videotaping and measures of heart rate and electrodermal activity of the subjects, along with interviews, will help determine the immediate physiological effects of emotion regulation and whether subjects can differentially regulate their responding.

Gross completed his PhD at the University of California-Berkeley with Robert Levenson, an APS Fellow and a leading authority on physiological measurement of emotion. He cites APS Fellow Paul Ekman of the University of California-San Francisco as another important influence on his research.



KATHY JOHNSON - Expert Knowledge

In an effort to better elucidate what underlies the acquisition of expertise, Kathy Johnson of the University of Indiana is interested in how adults' and children's categorical perception and knowledge of attributes within the domain of dinosaurs changes as a function of expertise. She will examine the difference between what children can do with their attribute

knowledge and what adults can do.

Children that Johnson is testing know a lot about dinosaurs, and she wants to determine if they can generalize that knowledge to the domain of shore birds.

"Most people who have done work on expertise argue that virtually all expert knowledge is domain-specific, not generalizable beyond the domain in which it has been acquired," Johnson says. She has been finding, however, that the more expert the children are in the dinosaur domain, for example—that is, the more they know about the function of horns and other body parts—the more adept they are at generalizing that knowledge outside of the domain in which they acquired it. Adults are very proficient at doing this, she says.



JOSEPH TRACY - Smoking and Schizophrenia

Joseph Tracy is hypothesizing that there is a biological, adaptive basis for the heavy smoking that has been observed among persons with schizophrenia. They may have chronically depleted levels of acetylcholine, and Tracy says the neuroleptics they typically take may exact an additional toll, further lowering acetylcholine neurotransmitter levels.

Thus they may smoke so much because they are biologically driven to upregulate acetylcholine and get an energy boost in terms of cognition and enhanced attention. Smoking upregulates dopamine, as well, Tracy notes. He measures these factors immediately after smoking.

Tracy's B/START project at the Medical College of Pennsylvania also has a goal of understanding the role of the cholinergic system in cognition. The smoking experiments are a way of watching transient effects of the cholinergic system.

B/START FROM PAGE 3

when NIMH was starting to grapple with the issue. Last year Antonucci was a proposal reviewer for B/START.

ADAMHA chronicled the declining fortunes of young applicants in its 1988 study showing that researchers under age 35 were then receiving 13% of ADAMHA grants whereas they had received 26% in 1980.

APS Charter Member Mark Appelbaum of Vanderbilt University, one of the B/ START application reviewers, said that ever-sharper

competition for fewer and fewer grants was probably a big factor in the decline of young investigators' share. "As competition gets sharper, people who are experienced can do



Appelbaum

better—they know more about how to do grants, they have better pilot data, they know how to justify their grants. Junior folks are in a tough, tough place."

Antonucci participated in a NIMH session that led up to the creation of B/START and now she says, "I feel very strongly that this is a good program, a very positive one. We were not getting enough people into the pipeline doing larger research projects. This program gets them into the system."

Getting Quantity and Quality

The quality of the fiscal year 1994 applications was "astonishingly high," in the opinion of APS member



Koslow

David Funder of the University of California-Riverside, also a B/START reviewer. "Of about 25 proposals I reviewed, 20 were things you would really want to fund—really nice ideas, well thought through, smart investigators. The painful part for me was coming out with review scores that allowed meaningful discrimination among them—they were almost all so good."

B/START Grant Recipients "Class of 1994"

Grantee

Louis Alvarez Cindy S. Bergeman Mark J. Chaffin Angelika Hartle Claussen

Loran D. Dorn S. Wayne Duncan Steven W. Evans Barbara L. Fredrickson

Jody Ganiban Michael Gibertini James J. Gross Yossi Guterman

Christopher L. Heavey

Jane Holschuh Kimberly Jameson Kathy E. Johnson Seth C. Kalichman

Richard J. Kavoussi Catherine A. Marler Carol A. Murphy Andrew W. Neisler

Carey S. Ryan

Anne-Marie Shelley Anton Somlai Kathryn R. Taylor Anne-Marie Tharpe

Joseph I. Tracy Connie R. Wanberg

Zuoxin Wang Jeffrey R. Zigun

Gregory Zimet

Affiliation

UC-San Francisco Univ. of Notre Dame

Arkansas Children's Hospital Univ. of Miami-Coral Gables

Univ. of Pittsburgh Univ. of Washington Univ. of Pittsburgh

Duke Univ.

George Washington Univ. Midwest Research Institute

Stanford Univ.

Medical Coll. of Pennsylvania

Univ. of Nevada

Univ. of Wisconsin-Madison

UC-San Diego

Indiana Univ.-Purdue Univ. Medical Coll. of Wisconsin Medical Coll. of Pennsylvania Univ. of Wisconsin-Madison Medical Coll. of Pennsylvania

Yale Univ.

Univ. of Pittsburgh

Albert Einstein Coll. of Medicine Medical Coll. of Wisconsin Medical Coll. of Pennsylvania Vanderbilt Univ. School of Medicine

Medical Coll. of Pennsylvania Kansas State Univ.

Kansas State Ui Emory Univ.

Medical Coll. of Wisconsin

Indiana Univ.

General Research Area

Mood management intervention

Optimal aging

Crisis sexual abuse treatment Infant-teacher attachment Hormone-behavior relations

Sibling conflict Adolescents

Psychophysiological functions Emotional development Effects of cytokines

Psychophysiology of emotion

Cognitive aspects of sensory functions

Marital adjustment Social networks

Quantitative studies of color Processes of subcategorization

HIV infection

Tryptophan hydroxylase

Rapid hormonal changes and mating

Habenular regulation

Cue reactivity and comorbidity

Membership status and perceptions of groups

Working memory deficits

HIV prevention Social support

Neonatal hearing screening Cholinergic effects of smoking

Job loss

Central vassopressin

FMRI of prefrontal activation

Adolescents' perception of HIV immunization

Appelbaum cautions about the need for proposals to be realistic. He admits that if he is less effusive about the proposal quality, it probably stems from the fact that he found many of the proposed projects overambitious. "Remember that these are truly small grants," he said. "The dollar limit is \$25,000 and the time period is only one year. This gives you an opportunity to test whether your idea has some potential and whether your approach is workable. You can test whether your instrumentation is something subjects can respond to, whether the task you want subjects to perform can really be done by a human. But it probably is not enough money or enough time to discover



Funder

prevailing basic deep truths, and I don't think all the applicants understand that."

In 1994, about one of every 10 applicants succeeded in getting an award.

There were 321 applications submitted, according to NIMH. Koslow noted that NIMH can award four or five B/START grants and get four or five new people into the grant pipeline with the same amount of money the agency has been allotting to each of the small grants it has funded in

recent years. The larger small grants provide up to \$50,000 a year for two years.

Eligibility

To be eligible for a B/START award, the proposed principal investigator must be a behavioral scientist independent of a mentor at the time of award and be at the beginning stages of his/her research career. An applicant must not have been designated previously as principal investigator in any Public Health Service-supported research project.

More information on B/START is available from NIMH Program Officer and APS member Molly Oliveri (Tel.: 301-443-3942). **D.K.**



Understanding Psychopathology As a Human Capital Initiative

APS-sponsored initiative nears final outline of priorities in national mental health research

oncrete contours of the Human Capital Initiative (HCI) on Mental Health and Psychopathology have been developed over the past months. Already clearly identified are many of the research initiatives and thrusts that will be presented in the soon-to-be-completed report, a report spearheaded by the APSinitiated HCI effort and funded in part by



Rue Cromwell chaired the HCI-Psychopathology task force.

the National Institute of Mental Health.

By the time summer rolls around, the report will reach mental health policymakers and federal program officers in Washington, DC, and around the country as well as policymakers in relevant private foundations. It will provide a unique guide to national mental health issues and areas needing research and waiting to be investigated, the problem areas where behavioral researchers expect to make their most important contributions to the reduction and amelioration of mental disorders in the decade ahead.

First Steps and Objectives

Two main steps in the process of preparing this Human Capital Initiative (HCI) document have now been accomplished. In a first phase, a task force led by APS Fellow Rue Cromwell of the University of Kansas gathered data and generated an initial draft. In a second phase, that draft was worked over—expanded in some places, and trimmed in others—by some 25 participants in a two-

day psychopathology and mental health workshop at Atlanta in October 1994.

The working draft that opened the Atlanta workshop established seven objectives:

- Clarify the scope of mental health problems through more rigorous and systematic research;
- Upgrade the behavioral technology and broaden the data domain for diagnosing and studying mental health problems;
- Pursue research on the various origins of mental disorders, emphasizing interaction across psychosocial, behavioral, and biological levels;

- Identify risk-increasing and riskreducing factors in individuals;
- Determine societal and personal factors that impede access to services for many who are in need:
- Continue to evaluate existing interventions and develop mechanisms and "risk capital" to foster and evaluate truly innovative ones; and
- Invest in the infrastructure to train behavioral scientists for psychopathology research teams and facilitate data bases, subjects pools, and vehicles of communication to spur future progress.

CONTINUED ON NEXT PAGE

Mental Health and Psychopathology HCI Atlanta Workshop Participants

Renato Alarcon **Barry Burkhart** Mary Blehar **Nancy Bliwise Richard Bootzin** Larry Byrd **Rue Cromwell Thomas DiLorenzo Marjy Ehmer Don Fowles** Celia Gershenson **Sherryl Goodman Irving Gottesman** Suzanne Goren Steven Hayes **David Johnson** Alan Kraut Jack McDowell Richard McFall **Thomas Ollendick Thomas Oltmanns Kurt Salzinger** Kenneth Sher Michael Telch **Abraham Tesser**

Elaine Walker

American Psychiatric Association Society for Psychological Study of Social Issues **National Institute of Mental Health APA Section on Clinical Geropsychology** Society for the Science of Clinical Psychology APA Division 6 - Physiological & Comparative Psychology **HCI Steering Committee** Council of Graduate Departments of Psychology **New England Psychological Association** Society for Psychophysiological Research **Association for Behavior Analysis** Society for Research in Child & Adolescent Psychopathology Society for Psychopathology Society for Education & Research of Psychiatric Nursing American Association of Applied & Preventive Psychology Fed. of Behavioral, Psychological & Cognitive Sciences American Psychological Society **Association for Behavior Analysis** Coalition for Psychological Clinical Science Association for the Advancement of Behavior Therapy Society for the Science of Clinical Psychology **APA Board of Scientific Affairs APA Board of Scientific Affairs University of Texas** Society for Personality and Social Psychology Society for Research in Psychopathology

FROM PREVIOUS PAGE

The additions and deletions suggested by the Atlanta workshop participants now are being shaken down into a new draft. Workshop attendees who urged more attention to children and the aged, family and societal factors, and closer ties between research and practice have forwarded text to the task force for inclusion.

The next step is phase three, in which a revised draft incorporating these and other changes will be sent to all the organizations and representatives involved in the initiative. The organizations should receive the draft before March. A final draft will then be sculpted by the drafting task force, following receipt of comments from this latest review. The document should be completed, Cromwell expects, in late spring, but he emphasizes the focus is not so much on deadlines as on thoughtful quality of input.

Other task force members are Richard Bootzin of the University of Arizona, Irving Gottesman of the University of Virginia, Thomas Ollendick of Virginia Polytechnic Institute, Thomas Oltmanns of the University of Virginia, and Elaine Walker of Emory University.

Hopes

As a member of the HCI task force, Walker said she wants to see the final document reflect strengths and assets of behavioral science "that have not been fully appreciated or recognized." In addition, she would like to see an emphasis on more intensive research utilizing longitudinal methodology, "so we can better understand the development of major psychopathologies. That would include both prospective and retrospective studies aimed at elucidating the changes in the manifestation of behavioral maladaptation with age." She believes the importance of such research lies in its potential for shedding light on the underlying mechanisms, both biological and psychosocial, of mental illness.

In recent years, Walker said, there has been an enthusiasm for and optimism about the potential for strictly biological

Fundamental Aims of the Human Capital Initiative on Mental Health and Psychopathology

The notion of the "human capital" concept, in general, is expressed in four foundational points, according to Cromwell: "how we can get individuals to live longer, be more self-sustaining, enjoy a broader span of productive life, and enjoy their own maximum potential functioning socially, economically, and creatively."

According to the task force, the specific points this final document will emphasize and the thrusts and initiatives will call for include:

- Psychodiagnostic techniques that have stagnated at the clinical interview level should be reinvigorated through use of clinical laboratory imaging techniques that can be developed to assess, by milliseconds, how patients respond.
- Multiply diagnosed individuals should be a major focus of new research, as they constitute the overwhelming majority of persons with long-term and life-long disorders. Better prevention and treatment for this population could mean tremendous savings.
- Chronic and recurrent problems and relapse deserve much more research attention.
- New broad-scale surveys of mental disorders among infants, children and youth. (Those under 18 have been omitted from major National Institute of Mental Health epidemiological surveys, although a new NIMH survey is including children.)
- More intensive longitudinal research is needed to yield better understanding of the development of major psychopathology.
- Improved capacity for clinical decision making and prediction of outcome should be built into or around the Diagnostic and Statistical Manual (DSM-IV).
- More research on concrete methods for bridging successful laboratorydeveloped treatments to the community should be done, as much good work is often lost between lab and community.
- Mechanisms that underlie efficacious treatments should be studied more intensively, to understand why they work and to apply that knowledge in seeking further advances.
- The diathesis-stressor model should be used in studying the etiology of most mental disorders because it gives full voice to the concerns and contributions of both psychosocial investigators and biologically oriented researchers such as neuroscientists.
- Animal researchers are ideally trained to give information about the effectiveness of newly developed drugs that impact behavior. One important way to clarify mechanisms of depression and schizophrenia is to study the neurotransmitter processes in animals.



Spotlight on Research

Seeing Is Hearing

"Speaking" computerized faces elucidate speech perception and have applications in multimedia, spoken language comprehension by deaf, and foreign language learning

research tool was all that psychologist Dominic Massaro and his team at the University of California-Santa Cruz had wanted. They needed something to help them do basic perceptual laboratory work on "visible speech," investigating how people perceive and recognize speech by eye and how, as listeners, they combine their visual perceptions of speakers with what they hear.

But now the research tools they developed, computerized "talking heads," are achieving national attention. These talking heads appear to have many potential applications in multimedia communications. And in

access to AT&T's software for speech synthesizers. AT&T is also somewhat beefing up the project's overall funding which has come almost entirely from the National Institute of Deafness and Communicative Disorders (NIDCD) since 1980. And now NIDCD has extended its support to cover the project for four more years. Massaro says all this goes well beyond

team visited the Santa Cruz lab

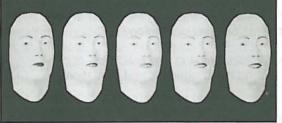
late last year. One outcome has

been a licensing agreement that

provides Massaro's group with

anything he and Cohen had in mind in the mid-1980s when they first conceived their "talking heads." At that time, Massaro

> and Cohen were using video clips of natural faces in their efforts to isolate "visible speech"—the visual perception of speech—from auditory speech.



A sequence of computer screen shots of a talking head as it generates associated speech.

the nearer term, maybe as near as five years, they could deliver important help to persons who have hearing impairments and those learning a second language.

A License to Call

New Jersey's AT&T Bell Laboratories have perked up their sensitive antennas to the work that Massaro and his research associate, Michael Cohen, have been doing. A five-person AT&T

Natural Isn't Everything

But natural faces couldn't give all the information that perceivers need, Massaro says. Moreover, he and his team wanted stimuli that could be more rigorously controlled than natural faces. This would allow researchers greater ability to

precisely manipulate facial and lip movements as well as movements of the tongue and jaw. (The current underlying computer-controllable grid allows control of as many as 60 parameters.) They could also present complicated sounds—even sounds that contradict facial stimuliwhile measuring subjects' perceptions. Their goal was to develop a tool that would do as much for research on visible speech as synthetic speech was already doing for investigations into auditory



Dominic Massaro (center) and research collaborator Michaell Cohen listen to "Professor Emeritus," a computerized talking head.

speech perception.

"That's how the talking heads developed," Massaro says, "as a tool to do perceptual work. But then, thanks to the serendipity in science, we soon saw there was a lot of value in talking heads, not just as an experimental tool but as a device that could help the hearing impaired and people learning a second language, and also in multimedia, human-machine interaction and many other applications in education and entertainment." The possibilities are practically endless, he says.

Everyday Importance

One everyday indication of the value of visible speech is the fact that the hearing impaired can significantly augment their speech comprehension through lip reading, something that is also important to people with normal hearing. "I'm sure you've probably heard elderly friends or relatives say that they hear the television better with their glasses on," says Massaro.

But in the 1980s Massaro looked hard and long to find research funding programs willing to support his development of an animated head that talks.

"We applied for money from the National Science Foundation and several other funding agencies in 1985 and 1986," Massaro said. Receiving good reviews, they were unsuccessful there and elsewhere, however.

They finally received support in 1990



from NIDCD and for the next four years from the same institute, "so we will be able to continue this work, refine, and go in some slightly broader directions," Massaro said.

Hearing the Picture

With NIDCD's past support, today's state-of-the-art talking head is a three-dimensional computerized image that resembles a highly expressive mannequin. An underlying grid allows researchers to control about 60 parameters to animate the face and create other movements in speech. Researchers can manipulate the jaw, mouth, lips, and tongue to mimic the

visible components of speech. (Massaro emphasizes that the basic design came from the 1970s doctoral dissertation of Fred Parke, a computer scientist; but Massaro didn't have the computers required to start the project until the mid-1980s.)

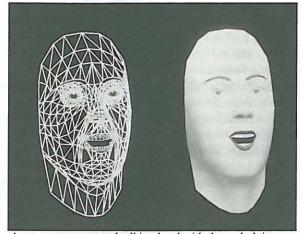
To start a session, researchers can type in English text of almost'any length into the computer. It then produces the text as spoken language, complete with corresponding facial movements, pausing for a second or two between sentences.

But investigators can also program novel or ambiguous sounds, half way between "ba" and "da," for example. They can also program the talking head to say "doll" visually, for example, while the word "ball" is sounded audibly. The result in this case is that most people watching the talking head hear "wall." Similarly, if a researcher makes an auditory recording of the nonsense sentence, "My bab pop me poo brive" and dubs it into a video of the talking head saying "My gag kok me koo grive," most viewers will report having heard, "My dad taught me to drive."

Massaro sees this as evidence that "people are always trying to impose meaning [on stimuli] at the highest level, even when they're given conflicting information," Massaro explains. "Although you might expect people to ignore

either the sound or the visible speech, in fact they use all the evidence and come up with the best solution. When there is inconsistent or ambiguous information, people will try to put all the pieces together in the way that makes the most sense."

Research seems to support this contention, with some studies showing that listeners who rely solely on lip reading have a comprehension rate of about 25 percent. Those who receive only audio signals in an environment like a noisy cocktail party have a similar rate of comprehension. However, when the same listeners both lip read and receive audio



A computer-generated talking head with the underlying control grid on the left.

messages, the rate of comprehension jumps to about 80 percent.

Prosopagnosia

Massaro's talking heads have now started to appear in psychology laboratories in a few other parts of the world, for example in London with Ruth Campbell and at the University of Western Ontario with Mel Goodale. Both are using the tapes with prosopagnosic subjects, persons who have difficulty recognizing faces, even those of close relatives.

As to their interest in talking heads, AT&T laboratory heads haven't been talking much. One of its representatives who visited Massaro's laboratory told the press, "I think this is important technology for the future, but I don't think the future is quite here yet."

Massaro himself is more open and sanguine. He sees talking heads being useful in personal computing "so if, for example you are using Miscrosoft Windows, a talking head could give instructions. When you click on a menu, a talking head could read you the menu, or it could serve as an alerting device."

In the Future

With four more years of funding now assured by NIDCD, Massaro says a priority is further work on a talking head that will give the hearing-impaired more information than they can get from

normal heads in visible speech.

Another goal is to bring affect and emotional expression to the talking heads, manipulating the eyes, eyebrows, and corners of the mouth—in part to determine if people can discriminate between emotions on the basis of cues in the face. Graduate student John Ellison is involved in most work on emotion.

Basically, Massaro has been working in speech perception for 20 years, striving to uncover fundamental rules about the way the mind works with language. His general approach is to identify how people perceive and recognize patterns. One of the themes of this approach is how

people use many different sources of information to perceive and recognize patterns. The sources may be ambiguous, but a perceiver pieces them together to interpret what the situation actually is, Massaro notes.

This general theoretical framework for describing the process of perception and pattern recognition also works in other language domains as well, Massaro says—in reading and sentence interpretation, for example. But pattern recognition also functions in situations like natural object recognition, cues to depth perception, and memory. The memory research is done by putting several cues together—like doing a crossword puzzle in which you work with a definition plus some letters from other words already written in. **D.K.**



People

Recent Promotions, Appointments, Awards...

Nancy Adler, an APS Charter Fellow, was among the 50 scientists elected to the Institute of Medicine (IOM) in October 1994. Members in the IOM are chosen for their "major contributions to health and medicine or to such related fields as social and behavioral sciences, law, administration, and economics," and



total active membership stands now at 493. Five were honored by direct election to senior membership, bringing that roll to a total of 536. Adler is a professor of psychology at the University of California-San Francisco where she is director of the health psychology program and vice-chair of the Department of Psychiatry. Her research has examined the use of decision models to explain reproductive behaviors, including the occurrence and resolution of unwanted pregnancy. She is heading now a planning initiative for the MacArthur Foundation on the pathways by which socioeconomic status affects health. With their election, IOM members make a commitment to devote a significant amount of volunteer time on committees engaged in a broad range of studies on national health policy issues. Another psychologist, Patricia Goldman-Rakic, also was elected to the IOM. She is professor of neuroscience in the neurobiology section of Yale School of Medicine, maintaining a joint appointment in the Department of Psychology.

APS Member Paul R. Lees-Haley received the Nelson Butters National Academy of Neuropsychology Award for Research Contributions to Clinical Neuropsychology in November 1994. His research focuses on brain damage caused by exposure to toxins and traumatic brain injuries and on emotional distress injuries. Lees-Haley is a Diplomate of the American Board of Professional Psychology (Forensic) and practices in Los Angeles, California.

Gordon E. Legge, an internationally recognized leader in the field of vision science, has received the 1994 Lighthouse Pisart Vision Award. The \$15,000 award is a major U.S. prize given to a person who has made a noteworthy contribution to the prevention, cure, or treatment of severe vision impairment or blindness. The Lighthouse, Inc., is the world's leading vision rehabilitation organization, with national education and research programs and regional direct services for people with impaired vision. Legge, an APS Charter Member, is a professor of psychology and neuroscience at the University of Minnesota where he is the director of the Program in Cognitive and Biological Psychology. He completed an undergraduate degree in physics at MIT and earned a master's degree in astronomy from Harvard University. Switching his primary interest to vision research, he paired his professional expertise

in astronomy with his personal experience—he has low vision which developed as a result of a childhood illness. Legge earned a PhD in experimental psychology from Harvard in 1976 and completed a post-doctoral fellowship with Fergus Campbell at the Physiological Laboratory, Cambridge University. He applied his training in visual psychophysics to the practical problems of clinician and rehabilitation specialists who need reliable methods for predicting the functional potential of patients with a variety of visual defects. In the process, he brought a new scientific rigor to the field of low vision science. He currently serves on the editorial boards of *Vision Research* and *Investigative Ophthalmology and Visual Science*.

APS Charter Fellow **Thomas H. Ollendick** became President of the Association for Advancement of Behavior Therapy (AABT) in November 1994 at the organization's 28th annual meeting. AABT has over 4,000 professional and student members, all of whom are interested in the application of behavioral and cognitive sciences to better our understanding of human behavior and to develop research-based and empirically validated interventions that enhance the condition of human lives. Ollendick is Professor and Director of Clinical Training in the Department of Psychology at Virginia Polytechnic Institute and State University. He also serves on the Steering Committee of the Human Capital Initiative on Mental Health and Psychopathology sponsored by APS (see article in this *Observer*).

APS Charter Fellow Benjamin Pasamanick of Schenectady, New York, received the Scientific Distinction Award from the World Association of Psychosocial Rehabilitation (WAPR) at the United Nations in November 1994. He was recognized for pioneering the use of community-based psychoeducation and rehabilitation for schizophrenia and for authoring Schizophrenics in the Community. Currently, Pasamanick is Research Professor of Psychiatry at the New York University Medical Center, and Research Professor of Pediatrics, Emeritus, at Albany Medical College. Tipper Gore, Mental Health Advisor to President Clinton and a key developer of the mental health component of the President's national health care reform, also was an honoree at this meeting. WAPR, founded in 1986, is an advocacy, training research group working to improve the quality of life for the 1% of the world's population that suffers from the most severe and chronic mental illness. It has 70 country branches and collaborates with agencies such as the World Health Organization and the International Labor Organization. Its members help train personnel, organize national family associations, initiate research using medication and psychosocial rehabilitation, and advocate for improved treatment and rehabilitation.

People News Welcomed . . .

The Editor invites submissions of announcements of noteworthy promotions, appointments, etc., for possible publication in the **People** news section of the *Observer*. Send with photo to: *APS Observer*, 1010 Vermont Ave., NW, #1100, Washington, DC 20005-4907; Email: LHERRING@BITNIC.EDUCOM.EDU.

APS Charter Fellow William R. Shadish, Professor of Psychology at the University of Memphis, received two national research awards in November 1994. He received the annual Lazersfeld Award for Evaluation Theory from the American Evaluation Association. The award is given for career contributions to under-



standing and advancing theoretical perspectives on evaluation. The American Association for Marriage and Family Therapy presented Shadish with the Outstanding Publication Award for his recently published quantitative synthesis of "Effects of Family and Marital Psychotherapies: A Meta-Analysis." This work was published in the December 1993 *Journal of Consulting and Clinical Psychology*. Shadish received his doctorate in clinical psychology from Purdue University in 1978.

Susan Shiffman, a sensory researcher and Professor of Medical Psychology at Duke University Medical Center, has been appointed a co-editor of the world-known Pergamon Press journal *Physiology and Behavior*. Shiffman, a new APS Member, will serve as the American Editor-in-Chief for the journal. She is an internationally



recognized authority on taste and smell and their role in nutrition and human behavior. Her research spans the range from clinical to molecular studies of these two senses. Co-editor Barry Everitt will serve as editor for papers submitted from all other countries. Her many research papers have been published in journals including the New England Journal of Medicine, Proceedings of the National Academy of Sciences, and the Journal of the American Medical Association. Shiffman received her PhD in psychology from Duke in 1970. She is actively pursuing studies that focus on how taste and odor affect food intake and nutritional status. During the last 20 years she has conducted extensive research on the effects of taste and smell in geriatric and obese populations. Her physicochemical research on the molecules involved in taste and odor quality is intended to assist in the development of taste and odor enhancers, salt substitutes, fat replacements, artificial sweeteners, and bitter inhibitors for use in the diets of elderly and obese persons. She is actively investigating the effects of pollutants on the senses of taste and smell.

Social psychologist **Abraham Tesser**, an APS Charter Fellow, received a prestigious Research Scientist Award (KO5) from the National Institute of Mental Health. This five-year renewable grant is given to researchers with a consistent record of outstanding research productivity and national recognition as a leading senior scientist. Following up on work-in-progress, Tesser's research over the next five years will focus on two broad areas: the role of self-evaluation (esteem) in interpersonal processes and the psychology of attitudes. At the heart of a 15-year concentration on interpersonal psychological processes is his Self-Evaluation Maintenance Model that characterizes much social behavior as being the result of attempts to bolster or defend one's self-

directed positive feelings. This work has major implications for mental health, both in terms of family and individual adjustment. Tesser received his PhD in 1967 from Purdue University. Among his current collaborators are APS Fellows **Steven Beach** and **Leonard Martin**. Tesser recently stepped down as Director of the University of Georgia's Institute for Behavioral Research (IBR) to devote himself full time to research. Scientists at the IBR attract about \$23 million annually in research grant funding, mainly from federal and state sources, and in 1993 produced over 100 scientific publications.

APS Fellow Edwin Thomas has retired from the School of Social Work after 40 years at the University of Michigan. Early in his career, Thomas was one of the key people to bring the contributions of behavioral social science into social work. His influential book, Behavioral Science for Social Workers, was a major early contribution in the effort. His innovative work on developmental research, emphasizing the design and development of interventions, has paved the way for new research strategies for use in the development of human service interventions. His more recent research has focused on alcoholism and unilateral family therapy. He is a founding faculty of the interdisciplinary Doctoral Program in Social Work and Social Science at the University. The program was established in 1956 with support from the Russell Sage Foundation. With a perspective spanning four decades since he received his PhD in social psychology in 1956 from the University of Michigan, Thomas has witnessed major changes in the field of social work.

Fulbright Scholars

Eleven APS members received the **J. William Fulbright Awards** in 1994. Listed here are those members along with their affiliation and the country in which they will be lecturing/researching:

Marion U. Cohn, associate professor of psychology, Ohio Dominican College: Estonia.

Stephen M. Colarelli, professor of psychology, Central Michigan Univ.: Zambia.

Richard J. Harris, professor of psychology, Kansas State Univ.: Uruguay.

Robert R. Hoffman, associate professor of psychology, Adelphi Univ.: Great Britain.

Ivan Z. Holowinsky, professor and associate dean of the Graduate of Education, Rutgers Univ.: Ukraine.

Douglas C. Kimmel, professor of psychology, City College of New York: Japan.

Joshua Klayman, professor of behavioral science, Univ. of Chicago: Australia.

Mary Ann Metzger, associate professor of psychology, Univ. of Maryland-Baltimore County: Norway.

Elliot S. Valenstein, professor of psychology, Univ. of Michigan: Italy.

Robin L. West, assistant professor of psychology, Univ. of Florida: Israel.

Sherry L. Willis, professor of human development and family studies, Pennsylvania State Univ.: Sweden.



SMITHSONIAN FROM PAGE 1

The popularity of the course mandated one of the Smithsonian's largest (and nicest) lecture halls in the high-tech Ripley Center, an elaborate granite and sandstone catacomb of underground lecture halls, art exhibitions and murals, music and art studios, and museum offices. The Ripley Center is a relatively new addition to the Smithsonian's famous "Castle" building facing the Mall between the Capitol Building and the Washington Monument. It is used primarily for public education.

Do It Again?

One of dozens of concurrent courses offered during the fall 1994 semester of the Campus-on-the-Mall, a year-round program of the Smithsonian, the APS course was a true success, according to Smithsonian course coordinator Faye Browning. Though not officially tabulated yet, a sneak preview of the course evaluations reveals several "excellent" ratings. "We were delighted to work with APS and the attendees' evaluations indicate they were very pleased, too." But even more telling of its value to attendees, she said, "was the fact that there was a steady attendance across lectures. And this is always a *strong* sign that it's an excellent class."

The moderators/coordinators for the seven-lecture course were APS's Executive Director, Alan Kraut, and APS's Director of Communications, Lee Herring. Smithsonian associates (members) paid (\$84) to attend and non-members of the Smithsonian paid over \$100 to attend. APS Board member Robert Plomin and Herring were instrumental in securing the internationally known speakers, six of whom are APS Fellows. (See course syllabus below.) With the *Bell Curve* having been released within days of the course's beginning, there was an extra air of electricity as the lecturers prepared to address many of the research and policy issues raised by the new book.

Given that the lectures were "enlightening, the discussions were lively, and the overall response was very favorable, the course must be considered a success," said Kraut. The consistent attendance at all seven lectures over the eight weeks of the course, said Browning, "was a clear sign that people were benefiting from it and enjoying it." Would we do it again if asked? Kraut said, "I had so much fun, we'd do it again next week!" And how does the Smithsonian feel? "We look forward to working with APS in the future," said Browning.

First Bell

Robert Plomin gave a lively kick-off to the series with an overview of the issues that would be explored throughout the course, beginning with a short history of modern behavioral genetics. In the 1950s, learning theory and Freudian theory held sway, though independently, and attributed everything behavioral to environmental factors. Schizophrenia, for example, was attributed to "schizophrenogenic mothers."

By the 1960s, psychiatry led the way toward modern behavioral genetics, via a classic study of adoption and schizophrenia. The revelation that the risk of developing schizophrenia was determined entirely by the biological parents, not the adoptive parents, was crucial in the development of modern scientific thought on this issue. Nonetheless, powerful resistance to the

whole idea of genetic influences on behavior continued through the early 1970s.

This resistance was driven by three myths, says Plomin. First, "If it's genetic, nothing can be done." Second, "Genetics supports a particular political agenda." And third, "Genetics implies determinism." Each speaker took pains to disagree with some version of these myths. Plomin says, "Genetic researchers cover the political spectrum...[and]



Plomin delivered first lecture in the Campus-onthe-Mall series.

in most cases, genetic influences impart a probabilistic propensity, not a predetermined progression."

Do the Math...

Quantitative population genetics partitions the variance in a given trait into genetic and environmental components, the main technique for doing this being the statistical comparison of various kinds of siblings. The most powerful comparison, pioneered by Charles Darwin's cousin Francis Galton, is between identical twins reared together in the same household and identical twins reared apart. Identical (monozygotic) multiple births provide the only circumstance in which two (or more) people have the same genome. Additional important comparisons are made between mono- and dizygotic twins, ordinary siblings, and adopted siblings.

Importantly, all of these techniques measure differences between individuals. But, says Plomin, "There are no good ways to measure differences between groups." That is, we can infer from twin studies that IQ is highly heritable, but that doesn't tell us what fraction of the difference in IQ between groups (ethnic or otherwise) is due to genetics.

Non-shared Environments

To the extent that a trait is more congruent between closer biological relatives, regardless of circumstances of their upbringing, the trait is said to be heritable; the remainder of the variance in the trait is ascribed to environmental factors. Is "environment" equivalent to "the family one is raised in"? Are monozygotic twins identical by every measure? No. "An important discovery," says Plomin, "has been this factor called the 'non-shared environment". Thus, there is a three-part division of influences on development and personality: genetics (heritable factors), shared environment (i.e., whatever shows congruence for sibs raised together), and non-shared environment (i.e., whatever variance is left over).

Not a One-way Process

Nor is the genes/environment interaction one-way. When trained observers rate the quality of parent-child interactions (e.g., for warmth and cooperation), and when children describe their perceptions of their parents' treatment of them, both the interactions and the perceptions are found to be significantly heritable. "The environment is influenced by genes, and individuals create their own environments for genetic reasons," explained Plomin.



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It can be very difficult to jump from quantitative population genetics to molecular genetics because, although some genetic diseases are determined by single genes inherited in a Mendelian fashion, others (e.g., schizophrenia) are evidently polygenic, making it difficult or impossible to find any one of the genes that contribute to susceptibility to the condition. Furthermore, the cumulative effect of multiple genes need not be linear. The term 'emergenesis' has been proposed for the extreme case in which an effect may be brought on only by one particular combination of several genes. Plomin likens this to dialing a telephone number, where each and every digit must be correct.

What is Plomin's emphasis, in his own work? "The most important advances in genetic psychology have been from nurture research," he says. "I am interested in the light genetics sheds on nurture."

Second Bell

Speaker David Reiss developed the theme that "genes, in order to have an effect on behavior, do so via an influence on



Reiss discusses genes and environment in psychosocial development.

environment." There is evidence in favor of a "developmental evocative" model, in which genes determine temperament, temperament determines the parents' reactions, and those reactions in turn determine the child's outcome. He gave the example of rare cases of severe eating disorders that occur around age two. Certain kids, due to genetic makeup, are so curious about their environment that they won't pay attention to their dinners. Their worried and frustrated parents often try to force feed them, but the kids often may rebel and starve. But, once the parents are taught to react otherwise, the child's eating disorder goes away. Reiss considers genes to be appropriate analytical tools for

behavioral systems but points out that "heritability may be different in different cultures."

Third Bell

Gerald McClearn discussed a study of 80+ year-old twins in Sweden, in which it was found that not only does the proportion of genetic, shared environmental, and non-shared environmental influences differ for different traits, but the proportions can change with age (as described above for intelligence and cholesterol). For people in this age range, body mass



McLearn discusses role of genes in behavioral changes and aging.

index is determined 74% by genetics, 26% by non-shared environment, and 0% by shared environment. The tendency to depression is 16% genetic, 56% non-shared environment, and 28% shared environment, one of the highest rates for shared

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Insights into Behavior: The Influences of Nature and Nurture

Oct. 24 Understanding Behavior. Overview of behavioral genetics and current debates on genetic and environmental analyses of behavior. Robert Plomin, director, Center for Developmental and Health Genetics, Pennsylvania State University.

Oct. 31 Nature and Nurture in Psychosocial

Development. Using studies of twins and other siblings to separate genetic and environmental factors in development. David Reiss, professor of psychiatry, and director, Center for Family Research, George Washington University.

Nov. 7 Why Do Individuals Age Differently? How the proportion of environmental and genetic factors varies among traits, and varies over the course of development. Gerald McClearn, Evan Pugh Professor of Health and Human Development, Pennsylvania State University.

Nov. 14 **Temperament in Children.** Psychology and physiology of bold and shy children, from the womb through childhood. **Jerome Kagan**, professor of psychology, Harvard University.

Nov. 21 Genes and Mental Disorders. Genetic factors in the development of schizophrenia. Irving Gottesman, professor of pediatrics, University of Virginia.

Dec. 5 Genes and Social Behavior. Genetic and Environmental factors in aggression. Robert Cairns, director, Center for Developmental Science, University of North Carolina-Chapel Hill.

Dec. 12 Environments Shaped by Children.
Genetic factors in the child influence the parents' behavior and the child's perception of the parents.
Sandra Scarr, professor of psychology, University of Virginia.



A Smithsonian Institution Campus-on-the-Mall Lecture Series Fall 1994

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environment. McClearn says that he and the other investigators "were shocked to find so little influence by the shared environment."

Fourth Bell

Extending the history of the nature/ nurture debate to antiquity, Jerome Kagan remarked that the existence of different temperaments has been accepted at all times except in the first part of the twentieth century. He studies shy vs outgoing babies, and said, "I believe most temperament is inherited differences in neurochemistry."



Kagan discusses genes' roles in development of temperament.

Although shyness per se only appears at at around one year of age, he has correlated shyness with a highly active sympathetic nervous system and a low threshold for stimulation of the amygdala, leading to more anxiety and inhibition. Kids at the opposite end of the spectrum—with a minimally active sympathetic nervous system and a high threshold for activation of the amygdala-tend to be bold, outgoing, and sanguine. These two extreme configurations are quite stable and even can be measured prenatally! Kagan and Plomin are now involved in a study of the heritability of these factors.

Fifth Bell

Irving Gottesman says, "People equate 'genetically influenced' with 'untreatable.' It's just the opposite. The more we know, the more, in principle, the condition is treatable." He studies schizophrenia. The risk of schizophrenia for someone with one schizophrenic parent is 17%. If neither parent is schizophrenic, but one parent's identical twin is schizophrenic, the risk is also 17%.



Gottesman lectures on the topic of genetics and mental disorders.

To Gottesman, "This is about the best evidence we have that you can have the genes and not express them." Many who do not develop clear schizophrenia nonetheless have a "schizotypal nervous system," which is inherited along with the risk of schizophrenia and confers a risk of schizotypal personality disorder, schizoid personality, paranoia, or atypical psychosis. This constellation of traits is transmitted together, but not in association with other psychiatric conditions, as, for example, depression. "This means you can not say," points out Gottesman, "that there is no difference between schizophrenia and manic depression, or schizophrenia and neurosis-that they are just different ways people become disturbed."

Sixth Bell

Robert Cairns studies animal models in hopes of identifying issues he can bring to his clinical psychology work. Selective breeding of mice on the basis of Cairns' model of aggression yields non-overlapping strains of aggressive and non-aggressive animals in just a few generations. Touting a reversal in our understanding of aggression, Cairns says his research findings on aggression can be summarized succinctly in a quotation by scientist John Fuller, "Behavior most modifiable by variation in experience may also be particularly sensitive to genetic variation."

Cairns points to the advantages of a developmental/experimental system, where you can not only ask how much genetic effect there is, but you can investigate how it operates. Like most of the speakers, he refuses to interpret



Cairns discusses genes and aggression during sixth lecture in the Nature/Nurture series.

genetic effects as an indication that intervention is impossible. He is able to inhibit mice from fighting by giving tranquilizers to either the more aggressive or the less aggressive mouse, indicating that aggression is a dyadic process, and its escalation can be blocked on either side. In longitudinal studies of adolescent development, Cairns finds windows of vulnerability and of opportunity for intervention. There are times in their lives when young people are particularly sensitive to good and bad influences.

Seventh Bell

Sandra Scarr emphasized the difficulty of exerting control over developmental outcomes for basic, enduring traits. Each of five main components of personality (e.g., Neuroticism, Introversion) shows a heritability of about 0.3 to 0.4, a shared environmental effect of less



Scarr discusses final lecture with Sarah Friedman of NICHD.

than 0.1, and about 0.5 due to non-shared environment.

As the non-shared environment is poorly understood (e.g., while most parents do try to treat their children equally, they really do not succeed), Scarr concludes that the intentional control parents exert over the child's development is astonishingly small. The enduring characteristics of intelligence and personality are mostly governed by genetics and individually experienced environment (non-shared).

Even attitudes are remarkably heritable, she says, but that is not too surprising after all, since basic attitudes reflect personality. The implication for parents, she says, is that beyond providing one's children with a normal environment-with a range of opportunities from which the kids will choose their own experiences, perceptions, and friends-parents shouldn't expect to mold the basic personalities of their children.

Final Bell

The overall message gleaned from the lecture series was that both genes and environment are critical to the modulation of behavior. Neither nature nor nurture has a monopoly on behavior. This may demand a new term to describe the integral nature of these two elements. "Narture," perhaps? Paul M. Rowe

> Paul M. Rowe is a free-lance science writer based in Washington, DC.



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focus of the 22 groups ranges from research methods—chaired by APS Charter Fellow Robert Sprague of the University of Illinois—to opiate blockers—co-chaired by APS Fellow Travis Thompson of Vanderbilt University and APS Member Curt Sandman of the University of California-Irvine.

Thompson's and Sandman's own research focuses on endogenous opiates released in self-injury and the effects of naltrexone used as an opiate blocker. One notion is that people may injure themselves after they discover that the release of endogenous opiates triggers an addictive kind of process like that demonstrated in the self-administration of opium in laboratory animals or in human heroin addicts, according to Thompson.

"There are also lines of evidence from animal research on stress and drug self-administration that suggest that the reinforcing effects of both cocaine and opiates can be enhanced by stress. And if you think of the conditions under which many mentally retarded and autistic people live, and the kinds of things that go on in their lives, it wouldn't be a big stretch to imagine stress," Thompson concludes.

Consensus Meeting

Psychiatrists and pediatricians comprise about 60 percent of the handbook drafters and participants, and psychologists about 30 percent, according to Reiss. The 22 consensus panels have from 5 to 24 members each.

Reiss believes the June meeting will attract developmental, and clinical psychologists with interests in mental retardation as well as psychopathology and psychopharmacology researchers who are not already represented on the drafting committees. It is also expected that consumer advocates and other lay persons will take part in the June meeting; many of them are associated with the ARC. Attendees will have an opportunity to comment on the draft reports of the 22 conference committees.

Psychologists have historically taken the lead in mental retardation areas, Thompson points out. The fact that the consensus conference and MR psycho-

Consensus Panels

Psychopharmacological Treatment of Mental Retardation

Ohio State University
June 15-16, 1995

Panel

Past Research
Research Methods
Epidemiology
Diagnostic Categories
Instruments
Review Panels
Ethical Issues
Standards of Care
Discipline Issues
Side Effects/Toxic Disorders
Interaction Effects
Neuroleptics
Anxiolytics

Antidepressants/MAOIs

Mood Stabilizers Stimulants Antiepileptics Opiate Blockers Vitamins Fenfluramine Beta Blockers

Clonidine

Chair/Co-Chair

Stephen R. Schroeder

Robert L. Sprague Christine Rinck Ludwik S. Szymanski Anne D. Hurley Sharon Davis Philip W. Davidson Bennett L. Leventhal and John E. Kalachnik Arthur M. Nezu Luke Y. Tsai Roger W. Sommi Alan A. Baumeister John S. Werry Robert Sovner Ann Pointdexter L. Eugene Arnold Norberto Alvarez and Richard A. Kern Travis Thompson and Curt Sandman Nirbay N. Singh Christopher Gillberg W. I. Fraser Randi J. Hagerman



pharmacology handbook project has been created by psychologists is just one more case in point, he says.

"I think the most exciting thing about psychopharmacology in...developmental disabilities is that we are beginning to approach it from a basic science point of view," said Thompson. "Up till now it has been what psychiatrists euphemistically call empirical—that is, they give drugs and they see what happens. That's because there was no theory as to why we would use the drugs. And now I think

treatments are beginning to be designed based upon theoretical analyses of the mechanisms responsible for the problems in the first place." **D.K.**

For information on conference registration, contact Barry Zvolenski at the Nisonger Center, 1581 Dodd Dr., Columbus, OH 43210, Tel.: 614-292-8365, Fax: 614-292-3727. Registration fee is \$215.



Teaching Tips

TEACHING TIPS provides the latest in practical advice on the teaching of psychology. TEACHING TIPS is aimed at current and future faculty of two- and four-year colleges and universities.

Complementing the Annual APS Institute on the Teaching of Psychology, TEACHING TIPS will inform teachers about the content, methods, and profession of teaching. Chief editor Baron Perlman and Co-editors Lee McCann and Susan McFadden, all of the University of Wisconsin-Oshkosh, welcome your comments and suggestions.

Send article ideas or draft submissions directly to Barry Perlman, TEACHING TIPS Editor, Dept. of Psychology, Univ. of Wisconsin-Oshkosh, Oshkosh, WI 54901-8601; Tel.: 414-424-2300; Fax: 414-424-73177, Bitnet: PERLMAN@OSHKOSHW; Internet: PERLMAN@VAXA .CIS.UWOSH.EDU.

The Value of Collaborative Scholarship With Undergraduates

Stephen F. Davis Emporia State University

The *classroom* is the sole forum for teaching. Or is it?

In the eyes of many faculty, especially new faculty, teaching takes place inside the classroom. A carefully planned class, well-crafted lectures, and more recently, multi-media presentations are their focus.

But, teaching can, and should, extend beyond such confines. Specifically, faculty-student research collaboration offers a rich forum for many opportunities for teachers to practice their craft and students to learn—outside the classroom. The pivotal element in such collaborative scholarship is the gradual process of professional growth shown by our students. While this growth can bring many rewards for them, faculty also accrue genuine rewards in such collaboration.

Students Benefit from Collaborative Scholarship

In addition to the potential for academic credit, a number of professional activities and scholarly skills are developed in student-faculty collaboration. Because these activities and skills are basic to the successes of more advanced students, their early development is important to students just beginning their training in psychology. My students have engaged in a variety of such activities beneficial to their education. These rewarding experiences have included:

- Preparing and completing an experiment: conducting literature reviews through electronic and/or traditional print media; evaluating and refining experimental designs; gathering and analyzing data; and preparing APAstyle papers.
- Formally presenting research results. (Venues for such presentations are listed below.)
- Publishing a journal article became a reality for some students. (See final section below.)
- Attending professional meetings and student research conferences, including initiating the beginnings of a professional network.
- Participating in research which, in turn, facilitates admission to graduate school (Keith-Spiegel, 1991; Smith, 1985).

Faculty Benefit From Collaborative Scholarship

Research collaboration with students is also beneficial for faculty. Faculty benefits include:

- 1. Witnessing student professional growth and development, perhaps the richest reward.
- Facilitating reviews of the current literature in selected research areas.
 This keeps one current in a variety of areas outside one's specialty area.
- Keeping analytic skills and deductive processes fine-tuned and active through the design and conduct of research.
- 4. Generating useful research data.
- Maintaining and expanding professional networks through attendance at conventions. This benefit is especially true of student research conferences where one can meet other student mentors.
- 6. Enhancing one's effectiveness as a teacher through active involvement in research. Unless teachers closet themselves and keep their work a secret, how can it be otherwise?

Collaborative Research: Doing and Teaching

Research Ideas

Collaboration, as it exists in my laboratory, may be unique in one sense: Most of the research ideas are student generated. It took me a little while to learn that not all of my student researchers shared my strong interest (much to my surprise) in the effects of animal odors in enclosed runways; and some were assertive enough to propose research projects *they* wanted to conduct.

My initial reactions to their "unorthodox" proposals probably were less than encouraging. After all, what could be as important as rat smells? Thankfully, a few hardy souls persisted, and several of their proposals came to fruition. Our animal research projects diversified; then our agenda began to include human research on topics such as Type A personality, fear of death, the imposter phenomenon, locus of control, level of self-esteem, irrational beliefs, and mate selection.

In recent years a number of teachingoriented projects addressing topics such as academic dishonesty, chapter versus unit tests, student/teacher expectations, and the training of teaching assistants have become components of our research agenda.

General Structure and Procedures

I attempt to involve students in professionally meaningful ways as early as possible in their collegiate career. The students' initial assignments and responsibilities are elementary and basic. For example, students in animal laboratory first learn accepted practices of animal care and maintenance. Likewise, students conducting human research projects first code data sheets or learn to make computer entries. As initial projects are completed, additional ones involving increased training and responsibilities are undertaken. Having long accepted the value of "peer teaching" (McKeachie, 1986), much of the training is done by advanced students.

This interactive and supportive milieu creates an atmosphere in which students feel free to contribute to the design and

implementation of experiments. By the time students are working on their second or third project, they are able to provide meaningful input and begin actual data collection.

As student researchers assume additional responsibilities, they also begin to participate in the training of new recruits and the cycle perpetuates itself. A key to collaboration as we practice it is gradual professional growth for all students involved.

Teaching Issues in Collaborative Scholarship

Although the general structure for collaborative research is rather straight forward, implementation can be challenging. Some of the skills you may expect to develop include:

- ◆ Tolerance for ambiguity. There are multiple projects ongoing all the time, none go smoothly, and some seem to become studies in "applied chaos theory." The faculty in charge must provide stability, wise and good advice, a cool head, and saintly patience. You are part scientist and part den mother.
- The ability to give up controlling one's own time. A commitment to students means being available. For the faculty involved in collaborative scholarship it sometimes feels like you are on call 25 hours a day. The heater in the animal colony breaks on weekends, rats escape at the worst of times, students always seem to run the last part of the experiment late on Friday afternoon and then need help. Although Type As may find relinquishing time control to be uncomfortable, it probably takes a Type A to effectively orchestrate collaborative research.
- ♦ Being an obsessive's obsessive. Students find questions about APA writing style you never knew existed. The fantasies of being the "great teaching scientist" melt away under the minutia of conversions to metric measurement, exact placement of the

- manuscript page header, whether figures have page numbers, and how to construct an acceptable table.
- ♦ Surviving endless meetings. If you are successful, students seek you out. It is not uncommon to be meeting with one small group of students and have several more queued up in the hall waiting to discuss another project.
- Being a generalist. You can safely predict it is the topics you would never expect, and know the least about, which will most likely interest students for collaborative research projects.
- ♦ Super listening skills. Being a generalist carries with it the responsibility of having (developing) super listening skills. Don't lose potentially good research because you did not listen carefully or long enough to your students' ideas.
- ◆ Hand holding at convention time. Do not forget how fearful the first paper or poster can be. The successes promoted by good practice and preparation will result in a decrease in future anxiety attacks, but a bottle of Pepto Bismol may still be a life-saver just before presentation time.

The Ouestion of Course Credit

Because these collaborative research activities are not tied to regularly scheduled academic course, this process sustains itself on a year-round basis. However, from the time they begin their research activities, students are informed they can receive course credit, via independent study.

To receive credit, the student must have worked in the laboratory for at least one semester and request credit during the regular enrollment period. During a conference the student's

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progress, any previous course credit awarded for research, and specific plans for the proposed credit are discussed.

Because academic credit can be awarded in 1-, 2-, or 3-hour blocks at my institution, the task of matching a project to appropriate academic credit is facilitated. Although it is arguable that the completion of normal research activities is sufficient to warrant course credit, I add an additional requirement. Students receiving course credit must prepare an APA format paper based on the designated research project. Ideally, this paper will be presented at a convention.

Funds and Equipment

You may have noticed that your own research requires some minimal level of support for facilities, equipment, and travel. Collaborative research is no different, and the discovery of this fact is another lesson for your students. Hence, it is advantageous to secure sources of funding, especially ones that are available on your own campus.

Although good research can be conducted without unlimited research funds and the latest equipment, these institutional grants really enhance collaborative projects. Don't be bashful. If you are conducting several collaborative projects, apply for several grants; such funds frequently are not expended during the academic year.

Conditions and Commitment Required

While collaborative research offers significant benefits, some cautions should be considered before students and faculty rush out to implement such programs. An overriding concern is the level of involvement one is willing to undertake. As described, my approach does not link research to a particular course or academic term; hence, students and faculty have to make extra time for these activities. We all can come up with numerous reasons why we "simply cannot" take on another responsibility. However, if collaborative scholarship is important, then one can and will find the necessary time; it is just a matter of priorities and good time management.

The enthusiasm of faculty research directors has a direct influence on the number of students who choose to work under their direction. High enthusiasm and drive equate to a larger number of student researchers. While one's laboratory may have "humble beginnings," it does not take long for the word to spread; an active and productive research operation serves as a magnet for aspirant students. The time may come when the size of your research group must be limited. My own group has ranged from 6 to 34 students. The current size of 14 appears to be optimal for my temperament and the diversity of our projects.

Where To Find Out More

Opportunities for Undergraduates to Present Research

- State and regional student conferences. For example:
 - Southeastern Undergraduate Psychology Research Conference
 - Arkansas Symposium for Psychology Students
 - ILLOWA Undergraduate Psychology Conference
 - Mid-America Undergraduate
 Psychology Research Conference
 - Great Plains Students' Psychology Conference
 - Michigan Undergraduate Psychology Paper Reading Conference
 - Minnesota Undergraduate Psychology Conference
 - · Carolinas Psychology Conference
 - Delaware Valley Undergraduate Research Conference
 - Lehigh Valley Undergraduate
 Psychology Research Conference
 - University of Winnipeg Undergraduate Psychology Research Conference

Information concerning these conferences appears regularly in *Teaching of Psychology* and the *Psi Chi Newsletter*. Contact:

- Charles Brewer, Editor, Teaching of Psychology, Department of Psychology, Furman University, Greenville, SC 29613
- Psi Chi Newsletter, Psi Chi National Office, 407 East 5th St., Suite B, Chattanooga, TN 37403

Student Sessions Sponsored by Psi Chi:

Psi Chi (the National Honor Society in Psychology) sponsors student sessions at all six regional meetings, as well as the APS and APA meetings (see address above).

Publication Opportunities for Undergraduate Students:

- The Journal of Psychology and the Behavioral Sciences
 John Brandi, Faculty Editor
 Department of Psychology
 Fairleigh Dickinson University
 Madison, NJ 07904
- Modern Psychological Studies
 Department of Psychology
 University of Tennessee-Chattanooga
 Chattanooga, TN 37403-2598
- Journal of Undergraduate Studies
 Department of Psychology
 Pace University
 861 Bedford Road
 Pleasantville, NY 10570
- Der Zeitgeist, Student Journal for Psychology
 Jens A. Schipuli, Editor-in-Chief 800 High Street, #B

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Stephen Davis is professor of psychology at Emporia State University (Emporia, KS), where he has been on the faculty since 1979. He received his PhD in experimental psychology from Texas Christian University. Davis is National President of Psi Chi and has published over 150 articles and presented over 425 convention papers with student coauthors.



APS Members In the News...

The news media in recent weeks has featured interviews with, or mentioned, several APS members on various research-related topics. The members are listed here along with their affiliation, the name of the publication/broadcast in which they were quoted/mentioned, and a brief description of the topic. The list is merely a sampling of the media coverage of members.

The Observer editor welcomes readers to submit such news item summaries for publication in future issues of this column. Send a copy of the original published story. Or, in the case of TV/radio broadcasts, send a description of the program, broadcast station name and city, interviewee and his/her affiliation, and date of the broadcast.

Robert Abelson, Yale Univ., *The New York Times*, Oct. 20, 1994: Judith Rodin's presidency of the University of Pennsylvania

Leann L. Birch, Pennsylvania State Univ., *The Washington Post, Health*, Nov. 29, 1994: Regulation of food intake in girls and boys

Thomas Bouchard, Univ. of Minnesota, *Science*, Oct 14, 1994: Behavior genetic study of romantic love; *Die Zeit*, Nov. 11, 1994: Behavioral genetics

Kelly D. Brownell, Yale Univ., *National Public Radio*, *All Things Considered*, Nov. 30, 1994: Obesity and genetics

Nancy Cole, Educational Testing Service, *Knight-Ridder Newspapers*, Nov. 27, 1994: Preparing for the SAT

Mary Crawford, Univ. of South Carolina, Working Woman, Oct. 1994: How people use language

Howard Gardner, Harvard, *Science*, Nov. 11, 1994: Musical and spatial abilities

Donna M. Gelfand, Univ. of Utah, *The New York Times*, Nov. 2, 1994: Depressed mothers have a reduced capacity for nurturing that may have lasting effects on their children

Roger Greenberg, New York Health Center at Syracuse, *The New York Times*, Oct. 19, 1994: Meta-analysis of effectiveness of Prozac in treating depression

William Greenough, Univ. of Illinois, Science, Nov. 11, 1994: Role of glia cells

Sharon Herzberger, Trinity College, *The Commercial Appeal*, Oct. 2, 1994: Violence in the family

Timothy Jay, North Adams State College, *Parents*, Nov. 1994: Swearing among U.S. children and adults

Oliver P. John, Univ. of California-Berkeley, *Allure*, Nov. 1994: Self-perception bias and visual perspective

Leon Kamin, Northeastern Univ., *The Chronicle of Higher Education*, Nov. 23, 1994: Intelligence, IQ Tests, and Race

Dacher Keltner, Univ. of Wisconsin, *The Chronicle of Higher Education*, Nov. 16, 1994: Traditionalists versus revisionists in teaching curriculum

David Kravitz, Florida International Univ., *Miami Herald*, Nov. 11, 1994: Motorists consider themselves good drivers

Deanna Kuhn, Teachers College at Columbia Univ., *The New York Times*, Nov. 29, 1994: Decision making among jurors

Mark Lipsey, Vanderbilt Univ., Science, Nov. 11, 1994: Meta-analysis

Gary Lynch, Univ. of California-Irvine, *Science*, Oct. 14, 1994: Drugs that may help memory

Eleanor Maccoby, Stanford Univ., *The Washington Post*, Nov. 15, 1994: New custody laws

James McGaugh, Univ. of California-Irvine, *The Washington Post*, Oct. 24, 1994: Role of adrenaline in memory formation; *The New York Times*, Oct. 25, 1994: Adrenalin and memory

Dominic Massaro, Univ. of California-Santa Cruz, *New Scientist*, Oct. 1, 1994: How humans use their eyes as well as their ears to understand speech

Robert Plomin, Univ. of Pennsylvania, *Die Zeit*, Nov. 11, 1994: Behavioral genetics

Frances Rauscher, Univ. of California-Irvine, *Science*, Nov. 11, 1994: Music lessons and sustained improvement in spatial skills in young children

Richard W. Robins, Univ. of California-Berkeley, *Allure*, Nov. 1994: Self-perception bias and visual perspective

Judith Rodin, Univ. of Pennsylvania, The New York Times, Oct. 20, 1994: First woman president of an Ivy League university; Science & Government Report, Nov. 1, 1994: President's Committee of Advisors on Science and Technology

Arnold Sameroff, Univ. of Michigan, *The Washington Post*, Nov. 8, 1994: Emotional basis of intelligence

Sue Savage-Rumbaugh, Georgia State Univ., The Fairfax Express, Dec. 7, 1994: The Great Ape Movement to grant apes semi-human legal status

Sandra Scarr, Univ. of Virginia, *The Washington Post*, Oct. 21, 1994: Intelligence of adopted children

Phillip R. Shaver, Univ. of California-Davis, *Science*, Oct 14, 1994: Behavior genetic study of romantic love

Gordon Shaw, Univ. of California-Irvine, *Science*, Nov. 11, 1994: Music lessons and sustained improvement in spatial skills in young children

Larry Squire, Univ. of California-San Diego, *The New York Times*, Oct. 25, 1994: Adrenaline and memory

Robert Sternberg, Yale Univ., *The Washington Post*, Oct. 21, 1994: IQ and genetic differences

Stuart Vyse, Connecticut College, *The Washington Post*, Oct 31, 1994: The psychology of superstition



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Ergonomics Research

When the program at Cape May was discontinued, Winn found himself a billet at the National Institute of Occupational Safety and Health in Cincinnati, where he obtained a grounding in ergonomics research. Such a change of assignment would

have been difficult for someone in another type of career, says Winn. "There are lots of opportunities in the Corps; but it takes personal initiative to open them," he explained.

From Cincinnati, he moved to the Washington, DC, area, to work with the National Institute on Drug Abuse, and then later with the Substance Abuse and Mental Health Services Administration.



Winn

Winn maintains his interest in ergonomics and aging, specifically, how to prevent repetitive motion injuries in older workers and plans to continue in that field when he retires from the Corps. Currently, he is a associate editor of *Experimental Aging Research*.

All seven of the uniformed services (Army, Navy, Air Force, Marines, Coast Guard, Commissioned Corps of the National Oceanic and Atmospheric Administration (NOAA), and Commissioned Corps of PHS) have a non-contributory retirement system, which provides an annuity after 20 years of service. Although that means that once you have invested several years of service, it would not be in your best interest to leave the Corps early, the flexibility, and the fact that you bring your rank and pay scale with you when shifting billets, means that you can have a highly varied career, without ever quitting your job!

Brain Imaging Research

Lieutenant Commander Francois Lelond has been in the Corps three years. His field is neuropsychology, and his position is with the National Institutes of Health (NIH), where he does functional brain imaging, using both MRI and PET.

After he finished his training in the biological bases of behavior at NIH, his temporary billet was "converted" to a permanent position, at which time he took the opportunity to join the Corps, rather than enter the Civil Service system. While he has remained at the Bethesda, Maryland, NIH campus, his billet has changed, and will change again soon, he expects.

In his NIH position, Lelond has considerable patient contact,



Lelond

studying brain function in Alzheimer's disease, Parkinson's disease, depression and aphasia. He expects to be doing more and more studies and assessments of brain damaged patients.

Is he free to stay in Bethesda for the rest of his career? "We can be called upon to serve wherever we're needed, in a crisis or emergency," he explains. But it is not like the military, where almost everyone is moved every three years. Furthermore, neither the PHS Corps officers, nor the NOAA Corps officers are under the Uniform Code of Military Justice (i.e., subject to military discipline), unless they are on active duty with one of the armed services. One consequence of that is that they are usually not obligated to accept a given billet, although that may mean scrambling to find another available position.

Windows of Opportunity

Lieutenant Commander Mark Paris wanted to stay in the Army as a clinical psychologist, but after eight years service he was "separated" from the service during a routine "drawdown," or reduction of force. "Only three in ten [clinical psychologists] were allowed to stay past that year," he said, explaining that Corps personnel serve at the discretion of the President, and Congress decrees the number of slots available each year. Three days after leaving the Army, he joined the PHS.

With eight years or less in another service, he was welcome in the PHS Corps, but after nine years in another service, the Corps is less likely to accept a person, because the person's Corps service would then obligate PHS to pay that individual's full retirement annuity when he/she retires. Occasional exceptions are made, however.

"For clinical psychologists, there are not as many opportunities to practice direct care in the PHS as there are in the military services. This is particularly true of the 'lie on my couch and tell me your problems' type of clinical psychology," says Paris. "It's best if you have some interest in administrative and staff work."

Paris is a Mental Health Senior Policy Analyst in the office of the Assistant Secretary of Defense for Health Affairs, at the Pentagon. His work concerns Quality Management for the mental health services for military personnel, and the Psychopharmacology Demonstration Project. In this latter program, an initiative of Senator Daniel Inouye (D-HI), clinical psychologists in the military receive medical course-work and supervised practice, under the guidance of the American College of Neuropsychopharmacology, leading to the ability to prescribe medication independently of a physician's direct oversight.

Tough Climb

Lieutenant Commander Frank Gonzales did his internship in clinical psychology at Fort Ord, and served five years with the Army. The Army stationed him in Europe during the Persian Gulf war, and he was considered for assignment to a mental health unit of one of the combat divisions assigned to the Gulf. At that point, "family pressures forced me to switch jobs," he says, explaining how it was that he came to work for the Indian Health Service (IHS).

Gonzales started with IHS as a civilian, and spent two months completing the paperwork to join the Corps. "It's the battle of your life to get in," he says, "but once you're in, it's wonderful! It's a great career!" He now serves in Anchorage, working in the Alaska Area Native Health Service and doing consultations, including some neuropsychological assessments, for various native health corporations.



FROM PREVIOUS PAGE

Good Deal

"When I first came to Alaska, I occasionally went to remote native villages, but IHS funds for patient work are being shifted to local authorities, and now there is less need to go to the frontier." Gonzales wants to remain there for about two more years, so his daughters can finish school, but then he would like to find a billet in California. "The Corps is the way to go, rather than the Civil Service, in terms of retirement, benefits, mobility and job security. It has all the benefits of the military, and none of the disadvantages," he says.

Occupational Safety/Health

The National Institute of Occupational Safety and Health (NIOSH), based in Cincinnati, is a part of the Centers for Disease Control and Prevention, and there are quite a few psychologists there. In fact, says Captain Robert Dick, an experimental psychologist and neurotoxicologist, "there is a lot of noteworthy psychological research ongoing at NIOSH." And, a number of the psychologists there, including Dick, are APS members.

Dick joined the Corps to do his military service, liked it, and stayed. "At that time, you could come in as a lieutenant before finishing your PhD, but nowadays, you would come in at a lower rank." Dick had worked in drug abuse treatment and community mental health programs before coming to NIOSH. "There are lots of different opportunities in the Corps, both in and out of research," he says. "Some are dictated by the beginning or ending of particular government programs. To change jobs, you can look around, or wait until there's a government reorganization. I've had two or three changes as part of government reorganizations."

His NIOSH work has to do with psychosocial aspects of the workplace, ergonomics, motivation, and stress. Dick's current research is on low-level exposure to industrial solvents. The researchers at NIOSH publish, like in academe, but "it might be a little slower getting out, because there is an internal review of all publications," says Dick.

Organizational Structure

The Surgeon General headed the entire PHS until the 1960s, when a controversy erupted about the Commissioned Corps' role. At that time, the Assistant Secretary for Health became the head of PHS, and the Surgeon General's role was shifted to, among other responsibilities, leading the Division of Commissioned Personnel.

Within the Corps, there are nine categories of officers, including physicians, dentists, nurses and an amalgam of health care professionals in the Health Services Category which includes some psychologists. But, most PhDs (282 officers out of a total Corps of 7,000) are in the Scientist Category. Each of the nine officer categories in the Corps has a Professional Advisory Committee (PAC) that reports to the Surgeon General on matters of professional and career interest.

Captain Jerry Johnson is the Chief Professional Officer of the Scientist Category PAC known as SCIPAC. Johnson has a doctorate of environmental health, and is detailed to the National Park Service, keeping the food, water, and general environment

of the parks safe for employees and visitors. "Behavioral science is the fastest growing group within the Scientist category," he says, "especially clinical psychologists working for the Bureau of Prisons." There are now a total of 59 behavioral scientists in the Corps.

Career Progression

With the growth in the number of Corps psychologists, Lieutenant Commander Angela Gonzalez Willis has decided that this would be a good time to organize this critical mass of psychologists into an informal behavioral science subcommittee within SCIPAC. As the number of behavioral scientists in the Corps grows, this group will give them a way to bring their particular concerns to the Chief Professional Officer and ultimately to the Surgeon General.

Gonzalez Willis's billet is in the Refugee Mental Health Branch at SAMHSA (Substance Abuse and Mental Health Services Administration). The Branch provides technical assistance and consultation on refugee mental health issues to other federal agencies, states, and communities.

Gonzalez Willis herself came to the United States as a refugee

from Cuba with her family in 1962, and she now works with Vietnamese and Bosnian refugees. She visits refugee communities to: help develop social service programs at the community level; assess their mental health needs and determine whether mental health services are responsive; and provide recommendations to states and communities to help establish programs to meet unmet needs. She has two school-



Gonzalez Willis

age children, and isn't looking to move anytime soon.

The Corps prefers generalists who are also experts in a given area. Career progression depends in part on mobility within the Corps. However, since scientists work mostly at PHS agencies located in the Bethesda and Rockville, Maryland, areas, "mobility is much less important for a scientist in a non-clinical track," she explained.

Breaking Into Prisons

"I may be the biggest risk-taker here," muses Corps psychologist Gilbert Sanders. "Some [prison personnel] carry body alarms or radios, but I don't like that; it gives inmates more of a reason to act out." Sanders is not escorted by a correctional officer or bodyguard, either, and, "most of what inmates say to me is confidential."

As a clinical psychologist at the Federal Penitentiary in Leavenworth, Kansas, Sanders works with "nearly 2,000 of the roughest individuals in the United States, the 'finer element' of Americas's crime." What protects him? The PHS uniform he wears. It looks like a Navy uniform and sets him apart from the Bureau of Prisons (BOP) employees. It evokes a less hostile attitude from the inmates, he believes. Sanders evinces the epitome of sanguinity.



FROM PREVIOUS PAGE

Sanders came to the Corps from the Army. Since he would not have been able to devote 20 years of service to the BOP before he became 55 years old (a requirement of civilian employees of BOP), he decided to enter the BOP through a Corps billet. He began by organizing substance abuse treatment programs; now his responsibilities include intake screening evaluations, suicide evaluations, and "SHU" (Special Housing Unit) reviews. The SHU is a prison within the prison, a punishment facility for badly behaved inmates. With 231/2 hours per day of "lockdown," SHU is very stressful, and once a month Sanders evaluates each inmate for signs of breakdown, decompensation, depersonalization, or loss of the sense of time.

He also counsels prison employees. "In fact, I do more counselling of employees than of inmates," he says. Sanders also laments that "BOP administrative concerns serve as obstacles that prevent taking advantage of many of the tremendous opportunities here for research." Sanders and other psychologists are working to convince BOP administrators and staff of the potential benefits psychological research could bring to the enhancement of institutional operations. But he says, there is an increased receptivity to developing an internal research capability.

Tropical Paradise

After 14 years as a nurse, Annette Zimmern took the advice of the physicians, and went back to school. As soon as she obtained her PhD in psychology, she entered the Corps, received training in substance abuse treatment and marriage and family therapy, and went to work in the Employee Counseling Service Program of the Corps, in Rockville, MD.

When the Corps advertised a position to establish a mental health and substance abuse treatment program in Pohnpei, Federated States of Micronesia (FSM), she applied, and was selected. Originally she was detailed to the FSM government for only three to five years, according to an agreement FSM has with the United States, but she has been asked to stay on.

She has been on this tiny western Pacific island for nearly six years, administering grant monies, and training mental health and substance abuse treatment workers. "This has been a unique

experience, one that I will always treasure." While she "will always feel lucky to have had this experience," Zimmern confesses that her location "...really is the boondocks." When she first arrived, there was "water and electricity only three hours per day. [Now, it's all day.] Most of the houses were thatched huts. The telephone information service and the hospital closed for lunch." She wouldn't have come



Zimmern

here when her children were young, she says, because, "It's a great place to scuba dive and fish, but the schools leave something to be desired."

The PHS Corps is magnificent, she says. "It's what you make of it," and Zimmern clearly has had the determination to take advantage the opportunities that come her way.

More Information

The psychologists we talked with assessed the Commissioned Corps of the Public Health Service as anywhere from a good career, a much better system than Civil Service for a government job, to a fantastic career, a gateway to the most exciting jobs imaginable. Those who rate it most highly seem to be those who have taken advantage of the extraordinary mobility that it affords, in terms of geography and job assignments. If you are interested in learning more about a career in the Corps, contact an officer below. Also see the sources below for information about federal employment generally. **Paul Rowe**

Paul M. Rowe is a free-lance science writer based in Washington, DC.

PHS Commissioned Corps Information

Jerry Johnson Chief Professional Officer SCIPAC PHS Commissioned Corps

Tel.: 202-343-7090 Fax: 202-343-7094

Lt. Cmdr. Angela Gonzalez Willis Refugee Mental Health Branch Room 1849 5600 Fishers Lane Rockville, MD 20857 Tel.: 301-443-2130

Federal Employment Information Services

The Career America Connection:

To receive information about current federal vacancies, the hiring process, or application materials, call the centralized telephone employment information service at 912-757-3000 (24 hours a day, 7 days a week).

Local Telephone Systems:

Touch-tone callers can hear information on current federal vacancies in a local area, as well as general information (24 hours a day, 7 days a week):

For employment information in	Call
IL, southern WI	Chicago Service Ctr.
	312-353-6192 (IL residents)
	312-353-6189 (WI residents)
KY, central/southern OH, WVA	Dayton Service Ctr.
	513-225-2720 or 513-225-2866
IN, MI, northern OH	Detroit Service Ctr.
	313-226-6950
IA, KS, western MO, NE	Kansas City Service Ctr.
2 % 28 2	816-426-7757 (IA residents)
	816-426-7820 (KS residents)
	816-426-5702 (MO residents)
	816-426-7819 (NE residents)
Eastern MO	St. Louis Service Ctr.
	314-539-2285
MN, ND, SD, northern/central WI	Twin Cities Service Ctr.
	612-725-3430
MN, ND, SD, northern/central WI	314-539-2285 Twin Cities Service Ctr.

Centers for Disease Control JobLine: Tel: 404-332-4577

State Job Service Offices:

Federal job information is provided to state offices on microfiche on a weekly basis. Find the address of the nearest office in your local telephone directory.

Internet

Nationwide federal employment information files are available via FTP at MTS.CC.WAYNE.EDU in the LCLD directory. Technical inquiries can be directed to ALAN@HERAKLES.STUAFFRS.WAYNE.EDU.





The New England Psychological Association 35th Annual Meeting, October 27-28, 1995

Gordon College, Wenham, Massachusetts

Call for Submissions Deadline: May 1, 1995

NEPA invites submission of proposals in accordance with, but not limited to, the following general themes: Clinical and Academic Perspective on Family Conflict, Divorce & Remarriage, Adolescence, Developmental Psychology, Psychopharmacology, Impact of Prescription Privileges, Animal Learning, Violence and Aggression, Substance Abuse, Cross Cultural Research, Intergroup Conflict, Memory, Industrial/Organizational Psychology, History of Psychology, Computers in the Classroom, Gender, Personality, Psychopathology, Behavioral Medicine, and Mental Health Care Reform. Psychologists, students, and others interested in academic, applied, or clinical psychology may submit proposals. Of interest are symposia, paper and poster sessions, and working lunches. Case studies and presentations regarding academic, applied, or clinical issues are welcome.

Highlights of the 1995 meeting: Keynote Speaker: E.Mavis Heatherington University of Virginia

New England State Association Roundtable High School Teaching of Psychology Workshop Other Invited Lecturers to be announced

NEPA Members will receive a copy of the Call for Submissions in late March. Other individuals wishing to join NEPA or receive a copy of the Call for Submissions should call or write:

Lvnn H. Collins, Secretary New England Psychological Association, Inc. Psychology Department, NC 122 Eastern Connecticut State University Willimantic, CT 06226-2295 Tel.: 203-465-4546, Fax: 203-465-4575

Exhibitor information only: Bryan Auday, 508-927-2300, ext. 4824.

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The Student Notebook

Deanne Heinisch - Editor

APSSC Offers Small Grant Award

The APSSC Executive Council has recently created a funding source for members as an effort to assist and support student research endeavors. The main function of the grant program is to allocate funding that may be applied toward the purchase of research materials prior to data collection. It is intended to provide partial financial support to both graduate and undergraduate student affiliates of APS for the completion of their research projects. Up to four graduate students are eligible to receive cash awards of \$250 each, and up to five undergraduates are eligible to receive cash awards of \$100 each.

To Apply...

To apply for a small grant, you must provide the following information. Check off each task as you complete your application to make sure it is complete.

- I. A cover letter stating:
 - ☐ Your name, mailing address, and telephone number;
 - ☐ Your current academic status (i.e., graduate, undergraduate);
 - ☐ The number of students conducting the research project;
 - ☐ The full name of the director of the project; and
 - ☐ The name and address of your university's psychology department.
- II. A self-addressed stamped envelope.
- III. A project summary (not to exceed five pages single spaced) containing a detailed description of the project, including, but not limited to, the following:
 - ☐ Ethical considerations for subjects (either human or animal);
 - Possible theoretical implications of the research project; and
 - ☐ A summary of previous related research.
- IV. The project's title (without the applicant's name) should appear at the top of each page so that it may be identified during judging.
- V. Verification that the project has been approved by the Human Subjects Review Board or by the Animal Subjects Review Board for ethical treatment of subjects.

Where to Send Applications...

Send seven (7) copies of the cover letter and project summary to: Rachel Pallen APSSC Graduate Advocate

848 Storer Avenue, #2

Fayatteville, AR 72701

Applications must be postmarked no later than April 20, 1995. All applicants will be notified of the results by June 30, 1995. Inquiries should be directed to Rachel Pallen (tel.: 501-444-7042; email: RJPALLEN@COMP.UARK.EDU).

Application Evaluation...

Grants will be awarded based on the perceived importance of the research project in terms of its ability to advance the field and its ability to explain (or help explain) some psychological phenomenon. Finally, the research design should be clearly conceptualized so that subsequent research may result in either a conference presentation or publication. Good Luck!

Convention Travel Assistance Available

The APS Annual Convention offers student affiliates a rare opportunity to present research, become familiar with other work being done in the field, and to interact with colleagues. However, the substantial cost associated with traveling to the convention prevents many students from making the trip. The APS Student Travel Award, established by the APS Board of Directors and administered by the APSSC, provides limited financial assistance to several students who wish to attend this important educational and professional event.

Travel funds are available to both graduate and undergraduate student affiliates who will be presenting research and demonstrate financial need. Students receiving travel assistance are asked to volunteer some of their time to help with registration or the job bank at the convention. Typically, an award consists either of \$100 cash or free hotel accommodations. The number of awards will depend on the funds available.

To apply for travel funds:

- (1) Send a letter of application (one page maximum) indicating your purpose for attending the convention, whether or not you are willing to work at the convention, and a travel budget. In addition, include your name, status in school (i.e., year), institution, home address, and telephone number.
- (2) Send a copy of the abstract that was submitted and accepted by APS. You must be an APS student affiliate to apply—nonmembers are ineligible for travel funds. Send applications by April 20, 1995, to: Chris Ratcliff, Department of Psychology, Texas Christian University, Fort Worth, TX 76129.





Ethnic Minority Committee Takes Shape

The Ethnic Minority Concerns Committee (EMCC) was created at the 6th Annual Convention of the American Psychological Society (APS) in Washington, DC. The APS Student Caucus (APSSC) established the committee to act as a voice for the concerns of ethnic minorities such as African American, Asian, Latino, and Native American student affiliates of APS.

The committee's mission is to assist, coordinate, advocate, and recommend programs and policies on ethnic minority student issues as they relate to APSSC and to the science of psychology in general. Specifically, the committee seeks to: form alliances with organizations which advance the interests of ethnic minority groups; encourage scholarly work on issues that enhance the understanding of ethnic minorities; and increase the involvement of ethnic minority students in APSSC.

Following the creation of the EMCC in July, a six-member committee was appointed. Its members are:

Rakale Collins, MS — Rakale is an active participant in the student government at Howard University. Her major is personality psychology with a research interest in stress and coping styles among African Americans.

Lynyonne Cotton, MS — Lynyonne is serving as the chair of the EMCC. She is pursuing a degree in developmental psychology at Howard University. Her research focuses on the design, implementation, and evaluation of educational programs for African American children.

Joseph L. Ferguson, MS — Joseph is currently pursuing a degree in personality psychology with an emphasis on gay and lesbian issues across cultures.

Leila A. Ford, MA — Leila is a specialist in the assessment and treatment of female incest survivors. Her major field of study is in clinical and counseling psychology.

Ira A. Neighbors, MSW — Ira is currently serving as the secretary of the EMCC. His expertise is in the area of research among populations of individuals with developmental disabilities.

Ming Shi Trammel — Ming Shi is earning her masters degree in developmental psychology. She also intends to pursue a doctorate degree in developmental psychology with an interest in resistance behavior of African American college students.

All committee members have spent a considerable amount of time and effort carefully developing projects congruent with the EMCC's mission. Among the committee's projects is the development of a list of psychological agencies advancing the interests of ethnic minorities. In addition, the committee is currently developing a bibliography on

The APS Student Caucus represents all the Society's student affiliates. It is not an honor society. All chapter chairs are additionally recognized as members of the APSSC Advisory Committee. For information on APSSC school chapter applications, contact:

Matt Montei Department of Psychology Sloan Hall Central Michigan University Mt. Pleasant, MI 48859 34TWTBK@CMUVM.BITNET

Chapter founders should provide information on the institution, department, and students, and designate a faculty sponsor.

selected topics regarding culture and psychology. The members of the EMCC invite you to offer your comments and suggestions with regard to the committee and its activities. We would like to hear from you. Please write to the committee at:

EMCC c/o Leila A. Ford HU Box 381 Howard University Post Office Washington, DC 20001 Email: G055231@HUMAIN.BITNET

CONTINUED ON NEXT PAGE

APSSC Officers • 1994-1995

All of the members of the Executive Council welcome students and others who wish to contact them about concerns particular to their own offices.

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Mentorship Committee Nikki Scarberry Department of Psychology Texas Christian University Box 32878 Fort Worth, TX 76129 RP591PS@TCUAMUS



STUDENT NOTEBOOK

FROM PREVIOUS PAGE

APSSC Welcomes New Communications Director

The Executive Council of the APSSC recently elected Matt Montei to the position of Communications Director. Matt is replacing Sunni Reilman who resigned from her position so she could concentrate on other things. While sad to see Sunni leave, we are looking forward to working with Matt, and welcome him to his new position. If you have any inquiries with regard to starting a new chapter, contact Matt at the following address:

Department of Psychology Sloan Hall Central Michigan University Mt. Pleasant, MI 48859 Email: 34WTBK@CMUVM.BITNET

Mentorship Program Experiences Early Success

The APSSC Mentorship Program has experienced initial success. Over 60 APS members and affiliates now participate in the program, and since August, 18 mentormentee matches have been made. Feedback from some of the participants indicates that these relationships have been very beneficial, and we anticipate further growth in the participation rate. As mentioned in previous issues of the Student Notebook, a lack of mentors continues to persist. The benefits of being a mentor include aiding in the development of junior APS members and interaction with future colleagues. All APS members and student affiliates are encouraged to apply as mentors and mentees. See the September 1994 issue of

the Observer for an application.

The APS Mentorship Program is now coordinated by Nikki Scarberry, a graduate student at Texas Christian University. Please send all inquiries and applications concerning the Mentorship Program to:

Nikki Scarberry Department of Psychology Texas Christian University Box 32878 Fort Worth, TX 76129 RP591PS@TCUAMUS

Hard Work Does Pay!

If you're a typical graduate student—working hard day and night, receiving little recognition for your efforts and no pay for your time—now is your chance! Submit an entry to the APSSC Student Research Competition which provides both graduate and undergraduate students with an opportunity to receive recognition for their research and also a \$250 cash award. Refer to the November 1994 Observer for entry instructions, or, contact Rachel Pallen, 848 Stoner Ave., #2, Fayatteville, AR 72701 (email: RJPALLEN@COMP.UARK.EDU; tel.: 501-444-7042).

Attention, APSSCnet Users ...

The listserv address of the APSSCnet, APSSC's electronic mail bulletin board, has recently changed. The new address is: LISTSERV@LISTERV.UNC.EDU. In addition, the new address of the APSSCnet has been changed to: APSSCNET@LISTSERV.UNC.EDU.

If you have any questions about the net, please contact Kim Delemos at KIMDELE@EMAIL.UNC.EDU.

MENTAL HEALTH FROM PAGE 15

approaches. She maintains, however, that neuropsychological studies in the 1960s and 1970s concluded that severely disturbed psychiatric patients show deficiencies in virtually every area. And while some thought such findings were too unspecific to be useful, Walker points out that "now these new cutting-edge neuroscience techniques are simply reaffirming those early behavioral science research findings. Namely, there is ubiquitous nonspecific central nervous system dysfunction in the major mental disorders." Greater faith in the utility of behavioral science studies is needed, she believes. "They have an important role to play in understanding major psychopathology" and no one area of science can do it alone, she says.

Horse Race vs Understanding

As a specialist in treatment research, Bootzin emphasizes the importance of knowing not just that a certain treatment works but why it works. "Understanding of the mechanisms is likely to lead to the development of new treatments," Bootzin said, "but funding agencies are often more interested in studies that compare Treatment A with Treatment B than in research around the mechanisms." If the field is going to advance, it must do so in terms of understanding whether a certain treatment owes its success to motivation, to learning new skills, to compliance, or to other specifically defined objectives. Far too often these factors "get lost in the horse race between treatments," Bootzin said.

Cold Wars

In researching origins of mental disorders, Gottesman sees the diathesis-stressor model as a key instrument. It applies to the etiology of depression, schizophrenia and some personality disorders and to the predispositions to those disorders and what may interrupt those dispositions on the way toward their becoming mental disorders.

"The beauty of this model is that it should stop all the cold wars that have gone on between so-called hereditarians and environmentalists or between biologyminded and psychosocial-minded re-

CONTINUED ON NEXT PAGE



From previous page

searchers. All these factions within the field ought to be brought together if they subscribe to the diathesis-stressor model, because it gives voice to all for their valid concerns and puts their contributions in perspective," Gottesman said.

Gottesman cites decades of research implicating genetic factors in severe depression and decades of research implicating stressful life events as causal. "It turns out that within the diathesis-stressor model, both are right. The genetic one is right with regard to the distal contribution of causes, and the psychosocial one is right in the proximal causes" that trigger disorder, Gottesman said.

The Mental Health and Psychopathology research initiative will be the next in line to be published under the HCI program. The first report was on productivity in the changing work place (Oct. 1993 *Observer*) and the second was on productive aging (Dec. 1993 *Observer*). **D.K.**

Attention job seekers...

Search Observer Job Ads on the Internet!

Employment Bulletin ads are now searchable on APS's gopher server. (See July/ August 1994, Observer.) Find the ads in one of two ways:

- Search via veronica or jughead for "American Psychological Society" or
- Go through the "other gopher and information servers" to find the Indiana gopher server: Hanover College Gopher.

The path from there is:

/Hanover_College_Information/ Public/American Psychological Society Gopher Directory.



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Organizational Profile

Council of Undergraduate Psychology Programs

Origins and Purpose

The Council of Undergraduate Psychology Programs (CUPP) was established in 1989 to: (1) promote the development of undergraduate psychology by providing a forum for discussion of matters of interest and concern to undergraduate programs; (2) promote effective leadership of undergraduate psychology programs by providing a forum for undergraduate psychology chairs and program directors to exchange ideas; (3) interact with and make recommendations to national and regional professional psychological associations, representatives of government agencies, foundations, etc., on topics relevant to the interests of undergraduate programs in psychology.

Membership

Departments with undergraduate programs in psychology, in institutions accredited for such purposes by their regional accrediting association, are eligible for membership. Normally, the representative of the member department or its equivalent is the chairperson of the department or the director of undergraduate programs. Annual membership is \$25.

The "Organizational Profile," a regular feature of the APS Observer, informs the research community about organizations devoted to serving psychological scientists and academics. It is difficult for anyone to keep abreast of the various organizations of potential personal interest. This section should help in that task. The Editor welcomes your suggestions as to organizations warranting coverage.

OFFICERS

National Chair—Nicholas Kierniesky, Mount Saint Mary's College (MD) (Email: kiernies@msmary.edu) Past Chair—Stephen Hobbs, Augusta College Secretary-Treasurer-Margaret Weber-Levine, Morehouse College Newsletter Editor-Frederick Maxwell, Southwestern Missouri State University Clearinghouse Coordinator—David Johnson, John Brown University

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West: Kenneth Beauchamp, University of the Pacific Rocky Mountain: Joan Post-Gorden, University of Southern Colorado Southwest: Tom Jackson, Fort Hays State University Southeast: Sue Kirkpatrick, University of Alabama Midwest: Gary Francois, Knox College

East: Delbert Elsworth, Elizabethtown College

BACKGROUND

Prior to this decade, several organizations have focused on teaching relatedissues (Div 2, APA), graduate education (Council of Graduate Departments of Psychology), teaching techniques (Council of Teachers of Undergraduate Psychology), or regional undergraduate/graduate chairs (Association of Department Heads/SEPA). However, the concerns and problems of undergraduate psychology programs had little focus at the national level. CUPP was created to provide a forum for undergraduate chair/program head issues and a focus on broader issues impacting on undergraduate psychology.

Since 1989, CUPP has grown to over 350 members. It's run by a Steering Committee composed of the above officers and regional coordinators. Starting next year, the National Chair will be a two-year position.

The organization's primary impact has been through symposia, panel discussions, and workshops in conjunction with the regional and national psychology organizations. An ongoing twice-yearly newsletter, and a clearinghouse for sharing information and ideas are being complimented more recently with CUPP efforts to develop an advocacy function. For instance, an official liaison has been established with the Board of Educational Affairs of APA. CUPP will be looking to establish closer ties with other national organizations with interests in undergraduate psychology.

CUPP is still young enough for chairs and program heads to shape the organization to meet their needs. However, undergraduate psychology also needs an organization like CUPP to examine the influences impacting on curricula, faculty, and students. Chairs, program heads, or their designated representatives, who have

a strong interest in the future of undergraduate psychology, are encouraged to join and influence the way CUPP can provide both a forum for issues and advocacy for undergraduate education.

Contact:

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