



# OBSERVER

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## Kay Deaux Is Voted APS President-Elect

*APS election brings John Darley and Stephen Ceci to APS Board of Directors*

Although the race for the White House continues to heat up, APS members have already made their presidential decision for next year. The new APS President-Elect is Kay Deaux, a social psychologist who is a distinguished professor and administrator in the Graduate School of the City University of New York. Deaux will assume the office of President when Sandra Scarr's presidential term ends on May 26, 1997.



Kay Deaux of CUNY-Graduate School will assume the APS presidency in May 1997.

Plucked from the ranks of the APS Board, Deaux has a long history of involvement with APS and has been particularly active as a member of the Coordinating Committee for the Human Capital Initiative (HCI).

APS members also chose two new Board of Directors members: John M. Darley, formerly the Chair of the Department of Psychology at Princeton University, where he

SEE ELECTIONS ON PAGE 4

## A Chance to Put More Punch in Peer Review

*Deadline for public comments to NIH is October 1*

If they act by October 1, psychologists have a chance to influence a series of changes in peer review procedures that the National Institutes of Health (NIH) plans to try out in the 1997 fiscal year and implement in FY 1998. (Readers can check out the NIH web page (<http://www.nih.gov/grants/dder/rgaupdat.htm>) for a summary of comments received to date.)

Comments are invited on 10 "principal recommendations" that the NIH Committee on Rating Grant Applications has proposed for restructuring the scientific review of the more than 40,000 extramural research grant applications the NIH processes each year. Not yet merged with the NIH system, however, are the grant review study sections of the National Institute of Mental

See **Point♦Counterpoint** (on page 9) for Robert J. Sternberg's criticism of new grant review criteria and reactions by Robyn Dawes and Lee Sechrest.

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# Capitalizing on the Breadth Of Psychological Science

Sandra Scarr  
President

American Psychological Society



One could argue that psychological science (PS) is defined by certain attitudes and behaviors, fortified by rigorous methods. It's a scientific frame of mind about behavior. It's a realm of discourse about behavior, in which the rules of evidence are those of science. PS is not a subject matter, a location, or a diploma.

PS is an attitude of frank curiosity, eagerness to challenge common wisdom, and an effort to create new information within evolving theories about behavior. PS is scientific behaviors—forming and testing hypotheses about behavior, derived from coherent theories. Hypothesis testing is a rule-bound scientific activity, defined by experimental and statistical procedures. The label "PS" adheres to activities that involve theorizing, framing questions, testing hypotheses, collecting and analyzing data, interpreting results, and applying them to real-life issues.

One can adopt a psychologically scientific posture about any question. PS attitudes are skeptical and behaviors are methodologically sophisticated. Psychological scientists believe that all knowledge is probabilistic. The challenge is to estimate how securely we know.

PS is not an exclusive club to which one gains entrance by scientific lines of research. Anyone can adopt psychologically scientific attitudes and behaviors. PS is not defined by where one works, how one makes a living, who signs one's paycheck, or even by one's daily activities. Some PS members produce new information; others consume it for practice and teaching. Openness and inclusion are important to PS: Any educated person has the potential to be a psychological scientist. PS is powerful, because we combine the consumers and the producers within one organization, the APS.

Successful businesses have become more customer focused than ever before; they listen to their customers, because that's who pays the bills. Is it so different in PS? The Human Capital Initiative is one successful effort to market PS to funding agencies and Congress. By bundling all of PS in a problem-focused package, we showed how PS research speaks to society's greatest problems, and what we have to offer toward their solution.

Who are PS's customers? There are three major constituencies: Funding agencies, the general public, and ourselves. When we ask for governmental and public support, we need to know what our customers want from us. We need to market our services to our customers, educate them about what PS can offer.

We need to educate their questions and concerns, help them to evaluate the value of the scientific information about behavior. In other words, we need to turn policymakers and the citizenry into information-consuming, psychological scientists. By making PS a more inclusive enterprise that reaches out, we can serve all constituencies better, including ourselves.

## Ninth Annual APS Convention . . .

The Call for Submissions is available on the APS world-wide homepage (<http://www.hanover.edu/psych/APS>) in a format that will print out to look nearly identical to the Call (see centerfold insert in this issue) if you download and install the portable document format (PDF) viewer (e.g., Adobe Acrobat) through the APS site.

From Science . . .

# Rethinking Research Training

*Threats to federal funding for science are pitting current research needs against the longer-term needs of training. Unless deliberate steps are taken, training may lose. In the following editorial, which appeared in the August 23, 1996, issue of the journal Science, APS Executive Director Alan Kraut urges the nation's scientific leadership to look beyond the current budget crisis and adopt a new approach to research training. More than just a commitment of funds, Kraut makes the case that a national training strategy is needed to preserve the ability of future researchers to tackle the nation's health, social, and economic problems. [This editorial is reprinted with permission from Science, August 23, 1996. Copyright 1996 American Association for the Advancement of Science.]* The Editor

## Mortgaging Science's Future

Alan G. Kraut  
Executive Director  
*American Psychological Society*

The prospect of cutbacks in federal funding of research has provoked a strong and largely successful defense by the scientific community. However, our advocacy has laid bare our priorities, and advancing the next generation of scientists is not among them. Unless we take deliberate steps to make sure money and mechanisms are available for training and supporting new investigators—even if that means less money for today's investigators—we are in danger of mortgaging research's future for our own current spending.

Maybe nobody sets out to overlook training, but it is almost invariably an afterthought. When federal agency officials and science advocates take to Capitol Hill, they describe the excitement of the Human Genome Project, they show pictures of the brain at work, they offer a peek through the Hubble Space Telescope. Of course these things should be promoted, but so must the research training that gave us the scientists who mapped those genes, traced those brain mechanisms, and discovered those stars.

The scientists who grew up under the first federal training programs are now the leaders of the science establishment. More than anyone, they should be attuned to the need for a strong federal commitment to training. In their hearts, they know it. Federal agency heads have told me that there may not be enough researchers in the future to continue their agency's mission in historically high-quality ways. However, that is not what they tell Congress. Research training, they tell me, is not what Congress wants to hear about.

By tailoring our message in this way, we put science on the same plane with every other special interest vying for a piece of the federal pie, and that's not good enough. We need to speak for the next generation, tell Congress what their needs are, and convince Congress of the importance of those priorities, even if they don't want to hear it.

It's true, Congress does not want to fund more research training. "Now let me get this straight, Doctor," they say. "Five NIH [National Institutes of Health] directors were just

here begging for more money because only 15% of their approved grants are going to be funded this year. And you want me to do what? Add more people to that competition?" Not exactly. This is not about more money for established competitors. We must invest in the next few generations of scientists. They are the ones who will build on current research to find the cure for AIDS or Alzheimer's, to prevent schizophrenia, or to create tomorrow's miracle metals. We should be as excited about bringing the best new minds to bear on these issues as we are about any current accomplishment.

Blindly pumping money into existing training mechanisms is not the answer; money for training should not be used to augment current science with research assistants cast in our own image. To encourage talented people to work in areas of national importance and to move in promising directions, we need to rethink the nuts-and-bolts mechanisms in ways that recognize the needs of young investigators at different stages of their careers. To give one example, in my field, psychology, a new mechanism is allowing young Ph.D.'s to collect pilot data while learning how things work at NIH. Known as B/START (Behavioral Science Track Awards for Rapid Transition), these grants are designed to reverse the "graying" of the field and support new investigators in their transition to independent research, a difficult juncture in a scientist's career.

We need to examine and reexamine such issues as mentoring; making training money portable so investigators can work in different settings; making multidisciplinary training deliberate; injecting new perspectives into training even where it is discipline specific; breaking down barriers between basic, clinical, and applied research; and many more.

On a broader scale, we need to initiate with policymakers a new national training strategy, one that articulates a strong federal role in producing and supporting young researchers—for their sakes, not ours. It will not be easy: Adopting a national training strategy may require something on the order of a culture change within science. However, if training continues to be a marginal consideration, we are virtually guaranteeing a future work force less qualified than what we have now. Both science and the nation deserve better.

## ELECTIONS FROM PAGE 1

is now the Dorman T. Warren Professor of Psychology; and Steven J. Ceci, who is the Helen L. Carr Professor of Psychology at Cornell University. They replace outgoing Board Members Richard A. Weinberg and Elizabeth Capaldi.

Sandra Scarr has assumed the presidency of APS, effective July 2, replacing Richard F. Thompson. The new APS Secretary is Milton D. Hakel, chair of the HCI Coordinating Committee and former APS Treasurer. (See the *Observer* masthead on page 2 of this issue for the full roster of the APS Board.)

As in any good election story, we must report the trends, relevant or not: (1) All three newly elected leaders are from the New York-New Jersey region, and (2) All three support scientific exchange across research boundaries. (The latter is the relevant trend, in case anyone was wondering.)

### Research Themes

Deaux's research interests involve two major themes: gender and social identification. Some of her earlier work focused on stereotypes and evaluators of men and women. Among other things, she has conducted a field study in a steel mill that revealed some ways in which gender stereotypes can bias an evaluation of individual's occupational performance. The study took place at a time when the mill was deliberately trying to increase the number of women employees and was presented for management's use to help alter the company's evaluation processes.

For the past 10 years, Deaux's work has focused on categories of social identification, such as gender, ethnicity, occupation, and political affiliation. Still largely in the theoretical stage, her work focuses on the functions those categories serve, why they are important, how a person's identifications may change, how people categorize one another, when a person finds those categories satisfying, when they do not.

Among other issues, Deaux has studied the experiences of Hispanic students attending ivy league schools, looking at factors affecting their sense of ethnic identity during the first year of college. Seeing that some students develop stronger ethnicity while others seek to minimize their ethnic identification, Deaux studied the different paths and strategies used by students who change that aspect of their social identity, as well as the influence of self-esteem in prompting those changes.

Deaux's research has been supported by many sources, primarily the National Science Foundation, but also the Department of Labor and university programs.

"I very much believe in the mission and agenda of APS," says Deaux, who has served on the Board of Directors and on the Nominating Committee, which she chaired in 1990. She is particularly enthusiastic about APS's role in encouraging collaborations between disparate areas of psychology.

"APS is an important organization," says Deaux, "because it recognizes the interplay between various subfields of psychology and various levels of analysis, from the discovery process to the eventual 'giving away of psychology in the public interest,' (that is, the application of behavioral research knowledge to policy, teaching, practice, and elsewhere)."

"Both its convention and publications provide a forum

where people can learn about other areas," she continued. "As examples, social and cognitive psychologists or clinical researchers and neuroscientists can see how their work is related, explore the links between them, and expand the knowledge base. APS is unique in the psychology field for providing that forum," she said.

### HCI Success

Deaux also is a member of the Human Capital Initiative Coordinating Committee, which oversees the development of behavioral science research agendas in broad areas of national interest, such as aging, productivity, mental illness, health, violence, and others. In that capacity, according to Deaux, she sees the measurable impact we can have on federal funding for behavioral science research.

"NSF is one of our major success stories," said Deaux, referring to NSF's use of the HCI in funding psychology and other behavioral and social science research. "I'm hoping we can be equally effective in other agencies," she added. "Initiatives we have developed so far have been natural fits for several agencies, and I hope we'll be able to have additional successes as people in Washington increasingly see the role of behavioral research in furthering knowledge and developing solid policy.

"Psychology has a continuing challenge to make the public aware of what our research is, what it can do, what it can tell us," says Deaux. There is still much to learn, she says, but "people need to know how far we've come, and how much we do know now."

### Intent on Research

Down the road from Deaux is new Board Member John Darley, an eminent social psychologist at Princeton whose eclectic list of research interests includes bystander intervention in emergency situations and psychological strategies for energy conservation.

Currently, Darley is concerned with the ways in which a person with power over interactants is able to shape the "personalities" that those others will assume in the interaction. To what degree are powerful individuals aware that they have molded the personalities that the less powerful individuals present? Some of the classic findings in social psychology, including correspondence bias and perceiver-induced constraint, suggest that the powerful are not aware of their influence, but other findings suggest that people are quite strategic in their manipulations of others, which suggests a conscious awareness of what they are doing. How does the powerful interactant manage the process that constructs the other, and what traces of awareness of this management remain with the powerful individual?

One of Darley's major areas of interest is psychology and law, specifically, "whether ordinary people share the moral intuitions of the criminal code." There often are discrepancies between community sentiment, what people think should be criminalized, and what the law criminalizes, says Darley, who is in the process of sketching out the implications of those discrepancies.

As one example, there is a discrepancy between what people

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## Distinguished Members Elected APS Fellows

Thirty-two names were added to the prestigious roster of APS Fellows in June when the APS Board accepted the recommendations of the Fellows Subcommittee. This committee, chaired by Andrew S. Baum, reviews all applications for fellowship and selects new Fellows on the basis of sustained contributions to scientific psychology. These new inductees swell the ranks of APS Fellows to almost 2,400. APS congratulates the following new Fellows:

**Leona S. Aiken**, *Arizona State Univ.*  
**Mark I. Appelbaum**, *Vanderbilt Univ.*  
**John A. Bargh**, *New York Univ.*  
**Jonathan Baron**, *Univ. of Pennsylvania*  
**W. Warner Burke**, *Columbia Univ.*  
**Robert B. Cairns**, *Univ. of North Carolina-Chapel Hill*  
**Nancy Cantor**, *Princeton Univ.*  
**Joel Cooper**, *Princeton Univ.*  
**Erich Eich**, *Univ. of British Columbia*  
**Russell H. Fazio**, *Indiana Univ.*  
**Joe Forgas**, *Univ. of South Wales*  
**Michela Gallagher**, *Univ. of North Carolina-Chapel Hill*  
**Sheryle J. Gallant**, *Univ. of Kansas*  
**Janice M. Juraska**, *Univ. of Illinois-Urbana/Champaign*  
**Don N. Kleinmuntz**, *Univ. of Illinois-Urbana/Champaign*  
**M. Kubovy**, *Univ. of Virginia*  
**Sarah F. Leibowitz**, *Rockefeller Univ.*  
**Richard T. Louttit**, *formerly of the National Science Foundation*  
**Ivar O. Lovaas**, *Univ. of California-Los Angeles*  
**Brendan Maher**, *Harvard Univ.*  
**James L. McClelland**, *Carnegie Mellon Univ.*  
**Michael McClosky**, *Johns Hopkins Univ.*  
**Robert F. Morrison**, *Navy Personnel R&D Center*  
**Richard K. Nakamura**, *National Institute of Mental Health*  
**Karl H. Pribram**, *Radford Univ.*  
**Sue Savage-Rumbaugh**, *Georgia State Univ.*  
**Daniel Schacter**, *Harvard Univ.*  
**Richard M. Shiffrin**, *Indiana Univ.*  
**Jane A. Steinberg**, *National Institute of Mental Health*  
**Esther Thelen**, *Indiana Univ.*  
**Thomas R. Trabasso**, *Univ. of Chicago*  
**Harry Triandis**, *Univ. of Illinois-Urbana/Champaign*

## APS Invites Nominations for New Fellows

### Fellow Status Criteria

(effective 12/94)

The basic criterion considered for Fellow status in the American Psychological Society is that of sustained outstanding contributions to the science of psychology in the areas of research, teaching and/or application. Candidates will generally be considered after ten years of postdoctoral contribution, though exceptional cases of candidates with fewer years will be considered. The nominee must be an APS member.

#### Nominations

Individual APS members may make nominations any time during the year. Nominators must supply the following documents to the APS Membership Committee.

- (1) A letter of nomination specifying why the candidate is judged to have made sustained outstanding contributions.
- (2) The candidate's current curriculum vita.
- (3) Letters of support from three outstanding contributors to the field of scientific psychology familiar with the nominee's work, one of whom must be an APS Fellow.

#### Review and approval of nominations

The APS Membership Committee has appointed a Fellows Subcommittee consisting of a Chair and other APS Fellows (representing diverse specialty areas) to consider the nominees for whom letters and vitae have been received. The Subcommittee's voting on Fellow status may be made during a meeting at an annual convention, on a conference call, or by mail ballot. The Chair of the Membership Committee will coordinate all evaluations, recommendations, and voting. The APS Board of Directors will review all nominees approved for Fellow status twice each year (winter and spring) and approved fellows will be notified accordingly.

#### Fellowship Nomination

I would like to nominate \_\_\_\_\_ (please print or type) for APS Fellow status. In support of this nomination I have enclosed the following documents:

- ◆ Letter of nomination
- ◆ Curriculum vita of nominee
- ◆ Supporting letters from 3 colleagues, at least one of whom is an APS Fellow

\_\_\_\_\_ (your signature)

\_\_\_\_\_ (printed name)

\_\_\_\_\_ (address)

\_\_\_\_\_

\_\_\_\_\_ (telephone)

Return to: APS Membership Committee  
 American Psychological Society  
 1010 Vermont Avenue, NW, Suite 1100  
 Washington, DC 20005-4907  
 Attn: Maria Cuzzocrea Burke



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SOCIETY

*From THE KANSAS CITY STAR . . .*

APS Charter Fellow Charles A. Kiesler became chancellor of the University of Missouri-Columbia in November 1992 (see September 1992 *Observer*), but the ensuing rocky relationship between the university system president and Kiesler led recently to his termination as chancellor. The editorial reprinted below from *The Kansas City Star* describes his enduring contribution to the university and the circumstances of his stepping down from the post. Kiesler was a key founding member of APS and was the only president of APS's predecessor organization, the Assembly of Scientific and Applied Psychology.

## THE KANSAS CITY STAR

Vol. 116, Monday, July 22, 1996, No. 309

A Capital Cities/ABC Inc., Newspaper

# Farewell to a chancellor

The short reprieve that Charles Kiesler got as chancellor of the University of Missouri-Columbia has ended. With his firing by a deeply divided Board of Curators on Thursday, the Columbia campus has received notice that the best it can do right now is try to maintain the status quo.

That statement is not meant as a criticism of Richard Wallace, who was named interim chancellor. Wallace said, "I have absolutely no intent to serve in a caretaker role." His approach is understandable. Yet he must know—because his appointment is temporary—that he's in no position to make great changes. Those would have to come under a new chancellor.

However, in the interim, if Wallace can maintain the achievements of Kiesler's leadership, he'll be doing the Columbia campus a great service.

Under Kiesler, MU has become more diverse, which enhances its educational value. He has actively recruited African-American students, and tried to make the university a more hospitable place. He has raised MU academically; this year's freshmen had the highest average ACT score of any entering MU class. He has emphasized academics over athletics. That's the proper priority for a university, even if it isn't always a popular approach in the sports-mad Midwest. And the chancellor has received overwhelming support from faculty and students on the Columbia campus.

Going over the litany of his accomplishments makes the loss for MU even more apparent.

If there's any bright spot in all of this, it's the broad hint that university president George Russell soon will step down. Part of Kiesler's undoing was his willingness to stand up to Russell. In this case, considering some of Russell's truculence and obstinate insistence on doing things his way even if it is demonstrably wrong, Kiesler's actions would appear more than justified.

But there's no doubt that Kiesler's unforgivable error was in not worshipping at the shrine of Russell's self-proclaimed greatness. Anyone who reports to Russell and takes the Kiesler approach will gain the president's implacable opposition. Kiesler is gone because Russell wanted him gone, no matter what other reasons have been trotted out.

Members of the Board of Curators have said they will not name a new chancellor for the MU campus until a new university president has been chosen. Obviously, the president should have input in the selection of a chancellor. But the search and confirmation process could take months. Finding candidates with both academic credentials and backbone who are also willing to put themselves at the mercy of a capricious president and a fickle Board of Curators might be tough indeed.

In the meantime, the Columbia campus will mark time as it tries to recover from one more unnecessary setback. Those who are striving for academic excellence at MU deserve better.

KAREN BROWN

As seen in *The Kansas City Star* on July 22, 1996, and reprinted for informational purposes only with permission from *The Kansas City Star*.

# Protection of Participants in Genetic Research Tops the Agenda of A New Presidential Ethics Panel

*APS Member Diane Scott-Jones to serve on panel*

President Bill Clinton's new National Bioethics Advisory Commission will hold its first meeting on October 4 in Washington, DC, with APS fellow Diane Scott-Jones of Temple University among its 15 members.

The Commission's task is to study and advise on ethical issues involved in research with human subjects. Its immediate charge will be to consider the management and proper use of genetic information in ways that best protect the rights and welfare of human participants. It is empowered to hold hearings, conduct inquiries, and establish subcommittees.

The panel includes behavioral, biological and medical specialists, as well as community representatives and members from the fields of philosophy and theology. It is chaired by Princeton University President Harold T. Shapiro, an economist who was a member of the President's Council of Advisors on Science and Technology in President George Bush's Administration.

## Ethics as Good as Our Science

Scott-Jones said she agreed with the goal that Jack Gibbons, director of the White House Office of Science and Technology Policy set for the commission when he said, "We want to make sure that our ethics are as good as our science."

To reach for that goal, Scott-Jones said, "we have to educate people in the field and keep these issues salient for us. They are not easy issues. We have to encourage the discussion of ethical issues and be aware of a variety of points of view on them. We have to engage researchers, users of research, and people who are participants in research to involve them in discussion of what is ethical and what we can properly do as scientists in our pursuit of knowledge."

For psychologists, the task is "to make ethics part and parcel of what we do when we implement our research projects. Ethics should not be something that stands apart or something that we only consider in the abstract. Rather, it must be part of the day-to-day

process of research," she said. In fact, true to her beliefs, Scott-Jones says she makes certain she discusses ethics on day-one of the graduate and undergraduate courses she teaches in the developmental division of the psychology department at Temple University.

Scott-Jones is a member of the joint APS/American Psychological Association task force to revise the *Ethical Principles in the Conduct of Research with Human Participants* originally published in 1982. The latest revision is nearing final draft form, she said.

Formerly chair of the ethics committee of the Society for Research in Child Development, Scott-Jones is currently editor of

the *Journal of Research on Adolescence*, the official journal of the Society for Research on Adolescence.

She also serves on the MacArthur Foundation's Research Network on Successful Pathways Through Middle Childhood, which she describes as "an interdisciplinary group examining what we know about how children move successfully through the years of middle childhood." In the network she has taken an active role in looking at "what we know about families from diverse ethnic groups." She said that "with immigration and changing demographics, it's particularly important now to try to understand what those issues mean for children."

## Varying Records of Accomplishment

The new presidential bioethics panel is the latest incarnation of several such commissions appointed over the past 22 years. But they have varied considerably in their effectiveness, as pointed out in *The Washington Post* in a July 20 story.

For example, the first panel, created by Congress in 1974, rapidly issued recommendations governing the use of human fetuses in research that were soon codified in federal regulations. Before its four-year charter expired, the panel established the bases for federal regulations on the protection of prisoners and children in medical research.

On the other hand, the panel created by Congress 1985 sank into endless bickering over abortion rights. It expired after four years without accomplishing even its first piece of business.

What are the prospects for successful achievements by the new ethics panel? Scott-Jones says, "Of course, anyone who agrees to devote time to an interdisciplinary commission on ethics fully expects the time to be well spent." **D.K.**

***We have to encourage the discussion of ethical issues and be aware of a variety of points of view on them. We have to engage researchers, users of research, and people who are participants in research to involve them in discussion of what is ethical and what we can properly do as scientists in our pursuit of knowledge.***

DIANE SCOTT-JONES  
TEMPLE UNIVERSITY



Diane Scott-Jones

## REVIEW FROM PAGE 1

Health (NIMH) and the National Institute on Drug Abuse (NIDA), while the National Institute of Alcohol Abuse and Alcoholism (NIAAA) has almost completely merged its panels with NIH's. (See accompanying box "Merging Peer Review" on page 15.)

NIH spends about 83 percent of its entire budget on extramural research. In the 1994 fiscal year it devoted about \$9 billion of its overall budget of \$10.9 billion to extramural research.

The peer review process, by which 16 or 18 "outside" scientists evaluate each grant, is a key step not only in determining which extramural research applications get funded, peer

reviewers also serve as sensitive antennae in NIH's efforts to identify and support the applications most likely to advance science and benefit society. In addition, the peer review process provides both NIH program staff and the applicants with fairly detailed summaries of the reviewers' evaluations.

### Coherence Across the Institutes

The current NIH drive to improve peer review was launched in late 1994, partly in response to the Clinton Administration's move to "reinvent government," but also as a broad effort to make the entire extramural grant review process for NIH's 24 institutes and offices more coherent. At that time, the NIH

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## The 10 Principal Recommendations of the National Institutes of Health Committee on Rating Grant Applications

1. The three proposed criteria for rating applications (in place of the six criteria currently used) are:\*  
**Significance:** "The extent to which the project if successfully carried out will make an original and important contribution to biomedical and/or behavioral science."  
**Approach:** "The extent to which the conceptual framework, design, methods and analyses are properly developed, well integrated, and appropriate to the aims of the project."  
**Feasibility:** "The likelihood that the proposed work can be accomplished by the investigators, given their documented experience and expertise, past progress, preliminary data, requested and available resources, institutional commitment, and (if appropriate) documented access to special reagents or technologies and adequacy of plans for the recruitment and retention of subjects."
2. Reviews should be conducted by with reference to these criteria. The reviewers' discussion and written critiques should address each criterion separately.
3. Applications should receive a separate numerical rating on each criterion.
4. Reviewers should not make global ratings of scientific merit, that is, not give an overall score to each application.
5. The current rating scales should be reversed so that the highest scores are the best scores. Currently, a score of "1" designates the best possible rating and a score of "5" designates the worst.
6. Instead of the current five-step scale, an eight-step scale (from 0 to 7) is recommended on the basis of the psychometric literature; however, a maximum of 11 steps (0-10) would be acceptable.
7. The rating scale should be anchored with adjectival descriptors only at the two ends. No intermediate anchors or descriptors such as "very good," "good," or "satisfactory" should be used.
8. Scores should be standardized on each criterion for each reviewer and then averaged across reviewers. The parameters for the standardization should be defined by an appropriately constituted group.
9. Scores should be reported on the scale used by the reviewers in making the original ratings.
10. If a single score is required to represent overall merit, it should be computed from the three criterion scores, using the same algorithm for all applications. The Committee on Rating Grant Applications favors the arithmetic average of the three scores; however, an appropriately constituted group should test and choose the algorithm to be used.

\* The three review criteria in Point #1 above are cited verbatim. Points 2 through 10 are summarized from the actual proposed criteria. The committee's report is available for viewing and downloading on the world-wide web at URL: <http://www.nih.gov/grants/der/rga.htm>.



## Point ♦ Counterpoint

### Is the System for Awarding U. S. Government Basic Research Grants Scientifically Bankrupt?

Robert Sternberg  
*Yale University*

"They left innovation out because it seemed a bad idea to suggest that every grant should strive for creativity."

This statement was made by

- (a) the leader of a mediocre team of scientists, attempting to justify the pedestrian research proposed by his group.
- (b) the head of a National Institutes of Health (NIH) grant-evaluation panel, sarcastically lampooning a pedestrian research proposal by a mediocre team of scientists.
- (c) the director of research for the government of a tyrannical dictatorship famous for its suppression of dissent, describing research-award policies in his country.
- (d) the chief of research for a company that has gone out of business, describing why his company failed after it fell way behind the competition in introductions of innovative new products.
- (e) the extramural research director at the National Institute of Mental Health, approvingly describing the recommendation of an internal NIH panel he co-chaired for restructuring the way grants are evaluated.

The correct answer to this multiple-choice question,

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### ON THE OTHER HAND . . .

#### Scientific Bankruptcy? No, Creative Accounting.

Lee Sechrest  
*University of Arizona*

I am writing this response (to Robert Sternberg's above criticism of proposed criteria for NIH grant review) from the perspective of one who has been on one review panel or another almost continuously since about 1970, sometimes on two simultaneously, and who chaired standing review panels for a total of 10 years, and who has been on many special or ad hoc panels. I have reviewed research proposals for NIMH, NIDA, SAMSHA, NHLBI, NCI, NICHD, AHCPR, VAHSR&D, the Center for Nursing Research, and other

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#### A Dour Response

Robyn M. Dawes  
*Carnegie Mellon University*

On the type of scale for grant evaluation that Robert Sternberg proposes above (one that "does not have a ceiling effect"), Sternberg's comments could be rated as "almost unboundedly creative."

Sternberg's creative Leap No. 1. Because an extramural research director at NIMH stated that "it seemed a bad idea to suggest that every grant should strive for creativity," Sternberg concludes that "discouragement [of creativity and risk taking] is no longer covert," but overt. Many of us, however, are unwilling

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### BUT THEN AGAIN . . .

#### We Can Invest in Creativity or in Vested Interest: A Reply to Sechrest and Dawes

Robert J. Sternberg  
*Yale University*

Creativity is often hard to see. Yet many people, like Lee Sechrest and Robyn Dawes, believe that it is readily recognized—by professors who are grant panelists, for example. Sometimes, no doubt, creativity is in fact quickly perceived. But I would like in this essay to focus on what I see as our fundamental disagreement, namely, the ease and frequency with which creative endeavor is typically recog-

nized, supported, and appreciated.

I have spoken about creativity to myriad professors, and indeed, teachers at all levels—elementary through university—and have yet to meet even one who believes that he or she is (a) not encouraging of, or, God forbid, (b) discouraging of creativity. Yet many of us would swear we have had a number of teachers who have not supported creativity.

Why the discrepancy? Because the discouragement of creativity is subtle, and the perpetrators are typically not

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to take the leap to interpret the statement that not all grants should strive for creativity (true) as one asserting that creativity should be discouraged (false).

Sternberg's creative Leap No. 2. Because it is possible that the distribution of scores on the current rating scales creates a blackball system, it necessarily does so. In fact, according to Sternberg, we need to "scrupulously" examine "the motives of 'blackballers,'" even though he provides no evidence that such people exist. I agree that such people should have their motives scrutinized if indeed we could find them. Many of us, however, are unwilling to take the leap to conclude that a blackball system exists without an empirical examination of the distributions of ratings.

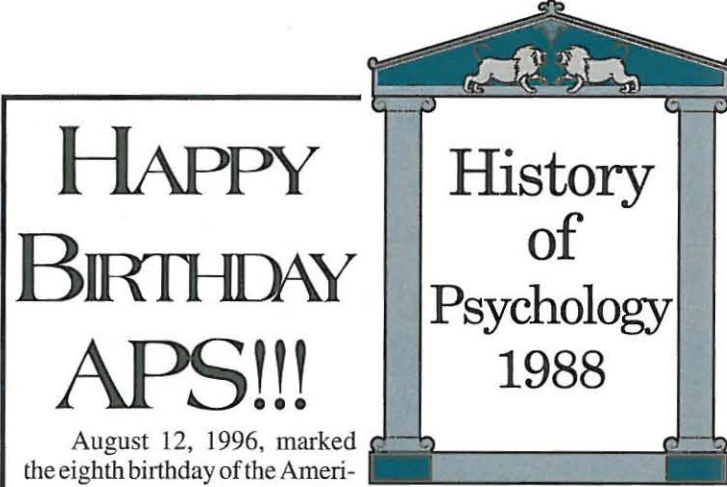
Sternberg's creative Leap No. 3. The current system of evaluation discourages reviewers from identifying a grant as boring. Rather, grant reviewers tend to deny their true motives in turning down such "boring" grants, and instead substitute rationalizations that these grants are technically flawed—which then "can lead to the funding of research that is technically flawless, but potentially of little scientific merit" (Yamamoto, as quoted in Marshall, 1996). Apparently, the reviewers who use the technical flaw excuse are trapped by it. Of course, a lot "can" happen, as in the blackballers "example." I myself have served on only three panels, so perhaps I haven't had the opportunity to run into such colleagues and am therefore unwilling to leap to the conclusion that they are ubiquitous. (An availability bias on my part?) In fact, some of us on my panels were even willing to risk offending our vegetarian friends by asking: "Where's the beef?" (But perhaps that's another type of blackball.)

Sternberg's creative Leap No. 4. The reliability of the rating system has overshadowed emphasis on validity. It is difficult to evaluate the comment since I know of no emphasis on either reliability or validity. Where are (as I once proposed) studies of the consensus reliability of different panels reviewing exactly the same grants, even using the same systems? (I have consistently proposed testing the new review system by having some panels use it and some use the traditional system, but other members of my NIH rating review panel have judged that to be unnecessary [another creative leap?].) To the best of my knowledge, the only reliability that has been evaluated is that of individual raters, which is a far cry from the reliability of a panel's judgment. (When I argue that multiple panels should evaluate proposals, I also argue that the judgment of only one—chosen at random—should be used for actual funding, to avoid attempts to "compensate" for presumed flaws or virtues that people assume members of another panel might have missed. My colleagues look askance—but not quite as askance as when I propose that 10 percent of money be used to fund proposals at random from those deemed acceptable, as the only real way of determining the validity of the ratings. Perhaps people thought I was only trying to increase my own chances.) Of course, we can all agree that the funding decision is an area (not unlike virtually all others) in which more research should be done, especially validity research (e.g., by funding at random).

Sternberg's creative Leap No. 5. Mindsets of the reviewers are "too local, too narrow, and too focused on short-term payoffs." I'm not sure that panelists are concerned with any payoffs at all, given that almost none ever find out what actually happens after the research they fund is implemented. (Applicants are supposed to

report results of any previously funded research, but these reports almost always go to subsequent panels.) Occasionally, one of us panelists gets lucky, sees a good piece of work, and thinks proudly "I had something to do with that." Exactly how such pride relates to long-term versus short-term payoffs I am not sure, but the occasions are rare.

In conclusion, I'm afraid that Sternberg's comment itself illustrates why creativity per se should not be a criterion for evaluating funding (or publication). He has all these creative insights that follow from neither logic nor evidence, but on the criterion of creativity, his comment does extraordinarily well. Unfortunately, it suffers from some rather severe problems on other criteria on which we might wish to evaluate it.



HAPPY  
BIRTHDAY  
APS!!!

History  
of  
Psychology  
1988

August 12, 1996, marked the eighth birthday of the American Psychological Society. Cre-

ated to promote, protect, and advance the interests of scientifically oriented psychology in research, application, and improvement of human welfare, the Society has grown into one of the premier scientific organizations in the world.

The genesis of APS began with a plan for reorganization at the American Psychological Association (APA). Steven Hayes, one of the core group of pioneers who began APS, wrote in the November 1993 *Observer* about the dissatisfaction at APA that prompted attempts to reorganize APA.

"The changes in the American Psychological Association that led to the APS revolution had a direct and painful impact," wrote Hayes. "The scientist-practitioners saw disciplinary values being subjugated to monetary values. They feared the growing intrusion of guild interests into academic training standards and licensing requirements, realizing that the control of training and employment ultimately meant control of the discipline itself." An organization was desired that would address these concerns, as well as the broader concerns of scientific psychologists everywhere.

The 1988 APA reorganization plan that would have given scientific psychologists a voice within APA, though approved by the APA Council and initially favored by all five candidates for the 1988 APA presidential election, was defeated, due to the clinical practitioner constituents of APA—the largest block of APA membership. In response, the Assembly for Scientific and Applied Psychology (ASAP), which was formed as a refuge for those disenfranchised by APA and to support the APA reorganization, sent out its own ballot. The vote came back 419 to 13 to form APS. The rest, as they say, is history.

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believe it or not, is (e), as quoted in *Science* (Marshall, 1996, p. 1257). For years, many scientists have feared that the system of awarding grants at NIH and other government agencies covertly discourages creativity and risk-taking. The view of these scientists may or may not have been correct in the past, but currently, it is not correct, but only because the discouragement is no longer covert.

How could an internal NIH panel believe that creativity is unnecessary for grant proposals, in an era in which many panels make awards to single-digit percentages of applications? How could this panel have rejected the dissent and alternative proposal of a member of the panel, biologist Keith Yamamoto (1996), of the University of California-San Francisco, urging that "creativity or innovation" be explicitly recognized as important in grant proposals? How has a federal granting institution reached the point where high-level officials would assign a backseat to creative innovation in science?

I would like to suggest five things that have gone wrong, as well as what can be done to correct them. As a psychologist, I am particularly concerned about how these issues apply to psychology. In some cases, the problems in psychology are even worse than in other fields: Funding is particularly tight in psychology compared with, say, biology, and psychologists are reputed to be more critical of their colleagues' work than are scientists in any other field. But the same issues apply in any science.

The important thing to remember is that although it is easy to point to federal agencies, the Congress, or anyone else as the enemy, the first fingers we need to point are at ourselves, because we are the ones who review grant proposals and serve on the panels that evaluate the reviews. Ultimately, the people in the federal government represent us. If there are changes to be made, we need to start making them ourselves. Thus, the five points made below apply to all of us, not just to those who serve in government. When it comes to the system for awarding grants, employees of funding agencies are not our worst enemies; we are our own worst enemies.

### (1) Low selection ratios coupled with ceiling effects in a rating scale create a blackball system.

**The problem:** NIH currently uses a 5-point rating scale, with "1" the rating of highest priority. Because selection ratios for funding are so low, an averaged rating just slightly over 1.0, such as 1.2, can be marginal in terms of actual funding. The result of such a system is that even one negative appraisal can effectively veto funding of a grant proposal. Consequently, the reward system values proposals that offend no one, and devalues risky proposals that have a higher probability of being offensive to at least some vested interest.

**A solution:** First, a rating system is needed that does not have a ceiling effect, so that more highly positive ratings from some panel members can offset the current effectiveness of a blackball from even one member of a panel (or one very negative external review). For example, the current 5-point system could be expanded to 10 points, with instructions to

raters to use the whole scale.

Second, the motives of "blackballers" need scrupulously to be examined. Of course, these individuals may see things others do not see. Often, however, what they see is a threat to their vested interest, and their vested interest may even be rather obvious, with only social nicety preventing their motives from being called into question. At a personal level, we all need to question our own motivations in evaluating proposals.

Third, ideally, funding would be improved, so that more proposals could be funded. Although we cannot directly control funding, we can, and, for the survival of research, must lobby intensively for improved funding.

### (2) The emphasis on finding methodological flaws leads to the funding of grant proposals that may be technically flawless but scientifically vacuous.

**The problem:** As Yamamoto (as quoted in Marshall, 1996) has pointed out, the current system of evaluation leads reviewers not to say, "This grant is boring," but rather to "write several pages describing technical flaws" (p. 1257). The applicant then goes back and writes revision after revision, fixing technical flaws instead of concentrating on writing a new proposal of greater scientific interest. This effect, in combination with that described in (1) above, can lead to the funding of research that is technically flawless but potentially of little scientific merit. It would be analogous to investing money in diamonds that are internally flawless but that have poor cut or color. Gemologists, by the way, almost never buy such stones: They know better.

**A solution:** Panels making recommendations on grant proposals should concentrate first and foremost on potential creative scientific contribution, not on methodological flaws. When proposals do not have a potential major creative scientific contribution to make, the feedback to the proposer should stress this fact rather than the methodological flaws, if any, of the proposal. Indeed, it is not even clear that methodological issues need to be examined in such proposals. What's the sense of doing or even evaluating good experiments on bad ideas? At a personal level, we all have to ask whether we are evaluating first and foremost the scientific contribution of proposed work.

### (3) Emphasis on reliability of the rating system has overshadowed more important issues of validity.

**The problem:** The tendency in evaluating rating systems can be to emphasize reliability, while de-emphasizing validity. Reliability appears to have been a main emphasis in the recommendations of the NIH panel to restructure the rating system. Reliability of a rating system is far easier to assess than is the system's validity, and so it is human nature to concentrate on the problems that are easier to solve. But they are not necessarily the more important problems.

**A solution:** Explicit research is needed on the validity of the system of assigning priorities. It is well within the power of NIH and similar organizations to do such research. For example, they could fund proposals by the regular system, and then use a different method of evaluation for funding a separate group of proposals—say, high-risk ones that might not otherwise have

CONTINUED ON NEXT PAGE

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been funded. Then, five and again perhaps 10 years later, the scientific impact of research funded under the two systems could be evaluated, for example, in terms of *Science Citation Index* citations as well as other measures (such as citations in textbooks or ratings of the impact of the research by scientists in the field). Such a proposal might or might not be accepted by the field. But clearly, we cannot wait five or 10 years to make changes. We need to start making them now.

At a personal level, we all have to ask ourselves whether we reward risk-taking, or discourage it, in evaluating proposals. We cannot put all the blame on evaluators or bureaucrats in Washington, but rather must start with ourselves.

**(4) The mindset of review panels is too local, too narrow, and too focused on short-term payoffs.**

**The problem:** Several factors conspire to create a mindset among panel members that emphasizes the local, the narrow, and the short-term.

First, given that very few proposals can be funded, it is tempting to fund those that are extremely likely to yield a payoff. Why risk funding a proposal that looks dicey, when there are so many other proposals that are almost certain to yield something?

Second, the number of proposals to be reviewed can become mind-numbing, especially when one considers revisions as well as new proposals. So, when faced with a staggering number of proposals to review, it is hard to concentrate on the scientific deep structure of the proposals, rather than on the less important surface-structural details that are less challenging to evaluate.

Third, many of the most creative and broad-minded people in the field do not want to serve on the panels, because doing so is very time-consuming and often not terribly rewarding. Finally, it is much easier to get consensus on issues of methodological rigor and flaws than on issues of creative contribution, and given the desire of a group to reach some kind of consensus, there will be a temptation to steer away from conflict-producing issues.

**A solution:** First, grant panels should be explicitly directed to concentrate more on deep structure than on surface structure—on the quality of the science than on minor points of methodology.

Second, the number of proposals can be reduced by giving panels the same authority journal editors have—to reject outright without possibility of revision those proposals in which the science lacks merit, however strong the methodology may be.

Third, when exceptionally creative scientists realize that these changes have been made, they will have an additional incentive to serve on review panels, because they will have fewer proposals to review, and they will be reviewing them according to the criteria that have guided their own work. At a personal level, we all have to ask whether we are ourselves being broad-minded and focusing on long-term payoffs when we evaluate proposals.

**(5) Panelists need better to separate fashion from substance.**

**The problem:** As many who have studied creativity have documented, scientists are no more immune from following the crowd than are others. They are as susceptible to jumping on bandwagons and to seeking only to confirm rather than to disconfirm their own beliefs (see Sternberg & Lubart, 1995, 1996). The result is that proposals that observe current fashions are more likely to be funded than are those that are less stylish.

**A solution:** Scientists need far more training in the philosophy as well as the history of science than they get. Many psychologists have never even read such basic works as Kuhn (1970), which points out the tendency of scientists to engage in normal science, and thereby to fill in holes in existing paradigms; or Popper (1959), which points out the need for disconfirmability of scientific theories and hypotheses. If scientists are not self-aware, it is in part because they have not been trained in a way that emphasizes first the scientific questions to be asked, and only second, the finding of answers to these questions (see Simonton, 1988; Zuckerman, 1977). The solution to this problem lies in education. At a personal level, we all have to ask whether we are rewarding proposers who defy the crowd, or only those who follow it.

**Conclusion**

In conclusion, our system for awarding grants is approaching financial bankruptcy. But our concern needs to focus as well on the danger of scientific bankruptcy. Can we afford to relegate creativity to a backseat in the scientific enterprise? I believe not. We need, therefore, to restructure our enterprise.

We must question the assets and liabilities in our own set of scientific values. The problem is not just in the rating system, per se, but in the system of values underlying it. Again, it's our own system of values we have to question, not just that of anonymous bureaucrats. Bureaucracies are slow to change. We as individuals don't have to be. We can start now.

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groups I have since forgotten. My aim is not to boast but to provide a basis for understanding my consternation, for I have never seen anything on a study section that resembles what Sternberg describes.

We can all agree that "originality" is not the sine qua non for science nor for a good proposal to do it. Science generally proceeds incrementally, not by leaps and bounds. The scientific "revolutions" of which casual readers of Kuhn are so fond have, by Kuhn's own account, been very few in number, and Kuhn's references are limited to physics and chemistry. He never discussed revolutions in biological sciences, let alone in the social sciences. Most science is not terribly innovative and, if it is good science, generally builds fairly carefully on what has preceded it. In some cases, science requires precisely a lack of originality in the development of methods or in the confirmation of previous work.

I am always impressed by the casual way in which critics of science often allege that creative impulses have been squashed by "establishment" science. Those allegations are almost never accompanied by any citations to specific examples of work that was scorned and that later proved remarkable. There are examples, of course; Garcia's work on innate preparedness comes to mind. But examples are hard to find. Is it possible that marvelously creative work was reviewed by peer groups and squashed so completely that it never again was heard of? I think not.

In fact, however, "significance and originality" is part of the critique that is expected in every review—the first section of the review usually. In my experience, the review of significance and originality is always taken very seriously by reviewers. Sternberg may think that his peers who end up on review panels would not know an original idea if they came upon one, but that is quite a different matter from the claim that originality is ignored or stifled.

There is no "blackball" system in scientific review. It is possible that if one of the 14 or 18 persons usually voting on a review committee gave a proposal the lowest rating, a five, the effect on the overall score might be large enough to move the proposal across the "payline." But if any such incident actually occurred, the executive secretary (I am using the old language here; the current term is "science administrator") is empowered to throw out really deviant scores. And if the executive secretary did not, someone else up the line surely would. Throwing out one, or even two, deviant scores would be a virtual certainty in any case in which that score came from a reviewer who raised no substantial objections during the review process. Sternberg has an original suggestion for dealing with the blackball (non)problem: he wants a scoring system with no ceiling so that, apparently, one highly favorable rating might outweigh almost any number of negative ones. A whiteball system!

Sternberg believes that the effort to find methodological flaws is so assiduous that review panels give high ratings to "technically flawless but scientifically vacuous" research. Neither, I will assert, does that happen. A lot of research that is funded is scientifically vacuous, but that becomes apparent only after it is completed. I have never been on a review panel that

voted a highly favorable priority score for a proposal that was considered to be trivial. I have, in fact, seen proposals that were methodologically (nearly) flawless given quite low priority scores or even outright disapproval because they were viewed as scientifically trivial. The decisions of review panels do not necessarily result in awesome science, but that does not stem from a preference on the part of the panels for inane science done remarkably well.

Peer review panels are not infallible, however. They make mistakes. The most common mistake in my estimation is that they imagine when they vote a good priority score for a proposal that the investigator will actually carry out the research as planned.

That does not always happen, because even the investigator may not have anticipated all the things that could go wrong. Sometimes there are disagreements on review panels, and I have heard, and at times participated in, vociferous, but almost never acrimonious, arguments about the merits of some project, including its significance and originality. But in the end, a decision has to be made, and I do not know a better way of making it than to allow panels of experts in the field to vote their consciences, which I think they almost invariably do.

Perhaps some readers, Sternberg among them, might think that the fact that one or two reviewers would disagree on the originality of a proposed project should somehow override the views of a large majority of the panel. No system that permitted that could survive for long.

No one who has had much service on peer review panels would disagree that occasionally a proposal might be turned down because it seems out of the mainstream, and probably some few of those proposals might eventually pan out, and we would learn something from them. But for every potentially valuable proposal we lose, peer review saves us from 10 cockamamie "innovative" proposals that would at best have been wasteful and at worst have been disasters.

There is some good in Sternberg's ideas. We can agree that research is needed on the validity of peer reviewers' ratings; that has been suggested by others. We can agree that peer review panels have too many proposals to review and that they should focus as well as they can on the potential longer-term contributions to science; those points have been noted before. Certainly many scientists could benefit from more training in philosophy of science, also a point noted by others.

As noted earlier, some of Sternberg's ideas are quite original. So we arrive at the judgement formulated by Dr. Samuel Johnson, who never shrank from reviewing his peers: that about Sternberg's ideas that is good is not original, and that which is original is not good.

### The Editor welcomes your letters

Submit typewritten letters (350 words max.) via postal mail and, if possible, include a computer file on disk (PC/DOS or Apple/Macintosh). Indicate which word processor you used, or, save your file as an ASCII or text file. Or, **send your letter via fax (202-783-2083) or email (to Lee Herring, Editor: lherring@aps.washington.dc.us).**

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aware of what they are doing. Whether in the classroom or on a grant panel, no one says anything like: "Well, that's a creative idea. I'm threatened. I'm blackballing it." Rather, an idea is rejected in the sincere belief that it is silly, not in synch with the times, ungrounded, unsupported, too speculative, at variance with years of experience, unscientific, illogical, or bizarre. Eventually, students, like grant proposers, learn the rules of the game. Ultimately, the rules may be automatized to the point where the players are unaware they are even playing the game of giving people what they want to hear.

Fortunately, many scholars, including some who have benefited from the reward system of academe, recognize the existence of widespread (and often unconscious) resistance to creativity. Predictably, many of these are scholars who specialize in creativity. For example, Gruber and Davis (1988) believe that creativity often takes a back seat to a kind of journeyman-like technical competence. They state that "in our competence-oriented profession, working within a 'can do' society, it is all too easy to overemphasize skill" (p. 244). Simonton (1988) observes that creative thinkers, rather than being at the center of the professional establishment, often exhibit "professional marginality" (p. 414). Gardner (1993) notes of seven great creative thinkers that

whenever they risked becoming members of 'the establishment,' they would again shift course to attain at least intellectual marginality. Freud became suspicious whenever his work was too readily accepted; Einstein labored for thirty years on the unpopular side of the quantum-mechanical enterprise; Picasso and Stravinsky renounced first the mainstream artistic heritage, and, in later decades, their own unrelenting departures from it; ...and Gandhi constantly embraced unpopular causes and controversial groups. (p. 368)

Is psychology somehow different? Is it possible that psychologists, because of their profession, are able easily to recognize the creativity others do not see? Not likely. Indeed, Csikszentmihalyi (1988) suggests psychologists may actually be slower in the recognition and diffusion of creative ideas than are those in some other fields, such as physics. Consider some question-and-answer quotations excerpted from interviews (in Sternberg, 1995) with some of the most creative contributors to the field of psychology. All of the contributors have had a major impact on the field, although not necessarily much experience on (or success with!) grant panels:

"Q. What is your greatest asset as a psychologist?"

A. I don't take *no* for an answer. If I'd have taken *no* for an answer, I would have published probably two articles in my life, rather than more than a hundred...." (Interview with Paul Ekman, p. 585)

"Q. What makes a psychologist really great?"

A. ...Doing research because it's popular...would never enter the mind of a really great psychologist." (Interview with Elliot Aronson, p. 544)

"Q. What obstacles have you experienced in your work?"

A. Well, I had a lot of obstacles because people didn't want to believe my work. [Early in my career] I had done a dozen or more experiments, but none of them were published in an APA journal." (Interview with Robert Rosenthal, p. 503)

"Q. How did you become interested in psychology in general and in your area of work in particular?"

A. ...I became especially interested in genetic differences in behavior when I was in college and I was told that there weren't any. At that time, in the late '50s, the social sciences were committed to the view that all differences among people were environmental. So being perverse, I decided that there was more here than met the eye." (Interview with Sandra Scarr, p. 402)

"Q. What is your major contribution to psychology?"

A. ...Some years ago, people used to say I was ahead of my time, talking about the importance of environmental and cultural phenomena before many other people in the field were taking them seriously. Those notions have come to be respectable now and are embraced by a lot of mainline psychologists." (Interview with Edmund Gordon, p. 389)

Indeed, a common theme in these interviews, and in other interviews with, as well as in journals of, creative leaders, is that highly creative people's ideas often are not readily accepted (see Sternberg, *in press*; Sternberg & Lubart, 1992, 1995, 1996). Creative people have to fight very hard for those ideas (Simonton, 1988). And those who do not have the fight in them, no matter how creative they may be, often simply give up and find themselves outside a system into which they did not fit. We never find out what their impact might have been. But those who have succeeded within a system see the system comfortably from within rather than uncomfortably from without.

Asking someone "who has been on one review panel or another almost continuously since about 1970, sometimes on two simultaneously, and who chaired standing review panels for a total of 10 years, and who has been on many special or ad hoc panels," or even someone who has "served on only three panels" to comment on the grant-review panel system is much like asking a senior Vice President of Merrill Lynch what he or she thinks of the stock market, or a senior Vice President of Chase Manhattan what he or she thinks of the capitalist system. Chances are they will all sincerely believe that the system that has worked so well for them—and to whose perpetuation they centrally contribute—is not broken and does not need to be fixed.

Those who have benefited the most from a system—both in terms of receiving grants and in terms of judging them—may have a somewhat different point of view from others who have not reaped the same benefits. Indeed, because I have myself benefited from the granting system, my own opinions may also be suspect. Often, though, those who have not benefited from a system are not asked. Indeed, we often lose sight of them rather quickly, because those scholars who do not get funded or

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appointed an internal Committee on Rating Grant Applications that then began to look at the logistics of scientific review and ask: Do we have a good scoring system? Does it work well? Is it efficient and clear? Does it give the maximum information to the program staff at each Institute who in turn make recommendations to their respective National Advisory Councils for funding? How can it be improved?

In May 1996 NIH issued the committee's 10 recommendations (see accompanying box) calling for changes in the peer review process. The committee recommended fewer but more precise and explicit measures of the quality of the research ideas proposed in the applications than the criteria used at present. The recommendations contain three concise criteria for weighing the scientific merit of each grant, along with new rating scales and procedures. They recommend that discussion among the reviewers and their written comments should be focused within the more concise criteria, using numerical scoring scales that would eliminate the 41 gradations used in the current grading scales.

"This is not a take-it-or-leave-it proposition," said NIH Deputy Director for Extramural Research Wendy Baldwin, as the recommendations were being issued. Baldwin, an APS member, emphasized that "peer review is not a system in crisis at NIH. It's a system that works well, but NIH is trying to make it work even better," she said.

By mid-August Baldwin's office had received about 125 e-mail messages commenting on the proposed changes. Additional comments were formulated by some of the peer review groups working in Washington, DC, this summer. A more voluminous flow of comments is expected as the deadline date approaches.

Some of the comments are in effect alternative recommendations that depart dramatically from the present procedures and the recommended changes of the NIH Committee on Rating Grant Applications. But most of the incoming e-mail and other comments suggest moderate changes, large or small, in the committee's proposals.

Baldwin's office says the early comments focus heavily on the three review criteria recommended by the committee on Rating Grant Applications: significance, approach and feasibility. Many of the comments argue for structuring these categories differently, referring to them by different labels, or adding at least one more category, and the question appeared to be "still up for grabs" at mid-August, NIH staff members said.

Currently, six review criteria are used in the grant review process:

- ◆ Originality of the proposed research,
- ◆ Experimental approach and methodology,
- ◆ Availability of resources to conduct the study,
- ◆ Proposed budget and duration of the study, and
- ◆ Experience of the principal investigator in the proposed area of research.

The comments received by mid-August also show fairly strong

opposition to the NIH recommendation that peer reviewers *not* assign a global score to each application, Baldwin's office indicates. The assignment of a global score seems to be extremely important to reviewers, because that is where reviewers think their scientific expertise is most needed, Baldwin's staff noted.

However, the comments show little sign of opposition to the NIH recommendation that the reviewers should take up one criterion at a time (e.g., significance, approach, or feasibility) and discuss it, comment on it in writing, and score it, before moving on to the next criterion. (At present, reviewers do not score the review categories.)

What remains at issue is whether the reviewers should assign a global score to each application or whether the NIH program staff should arrive at a global score based on the separate criteria scores given by the reviewers.

The recommendation to reverse the current scoring scale so that bigger scores are better, not worse, appears to be "no big deal" in the comments received by Baldwin's office. Currently the scale ranges from 1.0 for outstanding to 5.0 for acceptable. (These scores are averaged and converted to three-digit priority scores and percentile scores.) But this scale sometimes creates problems when NIH staff try to explain to Congress why the grants with the highest scores don't get funded. The standardization issue (see box, recommendation No. 8) gets some attention in the comments but not a lot, according to Baldwin's office.

Baldwin said she wants everyone to have a chance to comment before a final decision would be made on changes in the review procedures. And she urges that comments be sent directly to her office by e-mail at the following address: [dder@NIH.gov](mailto:dder@NIH.gov). **D.K.**

## Merging Peer Review

The National Institute of Alcohol Abuse and Alcoholism, which makes about 700 grants annually, merged three of its four review panels with those of the National Institutes of Health (NIH) last year. The panels of the National Institute of Mental Health and the National Institute on Drug Abuse (NIDA), each of which processes about 1,500 grants annually, have not been merged. NIDA Director Alan Leshner has urged caution in moving toward merger, saying that drug abuse research "must not be simply folded into extant peer review groups," and that "great care must be taken to ensure that new committees are developed that represent the 'blending' rather than the 'tacking on' of research areas."

## Opinion . . .

# Scientific Integrity: We Have Met The Enemy and It Is Us

*Can psychology help us prevent intentional deception in research and promote honesty?*

A sad chapter in scientific history closed recently when, after a 10-year investigative saga, the National Institutes of Health (NIH) exonerated a Tufts University biologist of scientific misconduct. The high profile investigation, involving work done in the MIT laboratory of Nobel Prize laureate David Baltimore, included congressional hearings and U.S. Secret Service analyses of laboratory notebooks. But despite the "no fraud" conclusion, all of us in the scientific community were tainted by the charges and we now work in an environment where protecting against scientific misconduct is a top priority. How can we, as psychologists, understand scientific dishonesty and use our knowledge to enhance integrity?

Research suggests that deception is both ubiquitous and difficult to detect. From white lies, to perjured testimony, to deceptive politics, there is substantial evidence that deceit is commonplace. Unfortunately, we are relatively poor "lie-catchers" and research does not have much to offer in helping to identify prevaricators. In the case of research integrity, unless there is physical evidence of data fraud or plagiarism, it is very difficult to draw unequivocal conclusions about guilt. In psychology's most discussed case, the well-documented charges that Cyril Burt manufactured data and collaborators, the debate over the allegations continues. It seems unlikely that detection methods alone can ensure integrity and may only serve to catch unclever researchers.

It is difficult to discern dishonest scientific practices, in part, because we have extraordinarily complex norms. Inherent to the research process is complex decision-making about how to collect, analyze, and report data. The data forgery alleged at MIT case was subtle, yet had the allegations been sustained, would have been a clear violation of scientific norms. Interestingly, we do not have absolute prohibitions against "creating" data. In psychology, along with other fields, there are a host of acceptable methods to impute missing data. We are also adept at using analytic procedures to manipulate data in order to find expected results. Such procedures are usually permissible, particularly if we report accurately what we have done.

Complex norms are also associated with how we cite the work of colleagues and even clear-cut rules are sometimes misinterpreted. A plagiarist several years ago published an *American Psychologist* article two-thirds of which was drawn verbatim from a monograph I had co-authored. I was told that the plagiarist thought she was merely reporting what was in the literature. Curiously, what she did would have been acceptable had she made minor changes in language and cited my work properly. Although the putative author bore the brunt of respon-

sibility, the problem was the review process that allowed the article to be published.

The complexity of these norms makes assessing allegations about scientific misconduct difficult to reconcile. With respect to the MIT case, if we accept NIH's final conclusion, then it is tempting to view the problem as having arisen from the ambition or jealousy of the accuser, who was a junior colleague of the researcher. But the record suggests that the young scientist genuinely believed that the data were problematic and that it was her responsibility to raise questions. It is not difficult to understand how an investigator convinced of a theory sees positive results even in their absence; so, too, is it plausible that frustration at not finding particular results leads a researcher to see mendacity in another's successful efforts. We assume that absolute truth exists, but it, and our cognitive abilities, may be too complex for such a truth to be found.

The MIT case, as well as my own experience with plagiarism, illustrates the Fundamental Attribution Error, the tendency to explain outcomes as having been caused by people rather than situations. This response is particularly pronounced when we view others' behavior rather than our own. In an ambiguous situation, such as the report of a complex experiment, it is not surprising that anomalies would be attributed to individual malfeasance. It is certainly not surprising in the case of one who plagiarizes. But we cannot ignore the situational pressures created in laboratories and academic departments where "publish or perish" is often taken literally.

Such situational pressures lead to a system that rewards those who get significant results and encourages researchers to use every means to find significance. For students, as well as established scientists, the stakes are very large, from the right to hold a job to the ability to conduct research. With journals proud that they reject 90 percent or more of the submissions and some granting agencies eager to have similar odds (on the theory that it will, eventually, get them more funds), it is not surprising that standards have risen to what may seem impossible levels. Unfortunately, we do not have a way to reward researchers for simply "playing the game" with integrity.

What makes reinforcing integrity particularly difficult is that individuals may genuinely hold different truths, and our perceptual worlds are filled with ambiguity. We do not believe we are being dishonest when we compliment another with an inaccurate compliment, partly because we know we make the person feel good by means of the praise. And, we often temper our critique of students' work, not because deception is a natural

SEE INTEGRITY ON PAGE 20



# Spotlight on Research

## On the Neurobiological Basis of Affiliation

*New York Academy of Sciences conference examines social behavior from evolutionary and biological perspective*

Two things caused a group of psychologists and neuroscientists to come together recently at Georgetown University in Washington, DC: neurobiology and affiliation. Convened for a New York Academy of Sciences conference, titled *The Integrative Neurobiology of Affiliation*, the group sought to examine the anatomy and physiology of the complex social interaction called affiliation.

The conference was supported in part by the National Institute of Mental Health, and the proceedings are scheduled to be published by the Academy in December of this year.

Focussing on only a sampling of the 29 total invited presentations, we highlight here the research of two of the five APS member presenters: Stephen W. Porges (University of Maryland-College Park) and David Crews (University of Texas-Austin). The other APS members included on the program of distinguished speakers were: Steven E. Brauth (Univ. of Maryland-College Park), Mary Carlson (Harvard Medical School), and William S. Hall (Univ. of Maryland-College Park).

### Evolution's Quirky Logical Legacy

Both Porges and Crews study the evolution of the parts of the nervous system, and how those evolving parts function within the context of social behavior. To some degree, mammalian neural structures and functions can be traced to their ancient reptilian origins, and the ancient functional origins of modern behaviors and brain structures can elucidate the rather quirky logic that evolution bestows on neural systems underlying current-day mammalian social behavior.

Crucial to this evolutionary process is "exaptation," the process whereby an old structure is recruited to perform a new function. To put it another way, an old part of the nervous system is coopted for use in a new function, and the modern structure and function bear the stamp of both the logic of the ancient function it evolved from and the logic of the new function it now performs. While some aspects of the old function may be

present, it is far from obvious in advance what part will be conserved and what aspect will be changed. Lest you think that behavior linked to the basic biological functions must remain boringly affixed to the system it first evolved to serve, here are two tales of exaptation.

### Emotions and the Vagal Nerve Theory

Psychological study of the emotions can be a puzzling business. It often seems that all emotions are characterized as activations of the sympathetic nervous system, and the specific emotions are differentiated from each other on the basis of their cognitive components.

Stephen Porges has developed the "polyvagal theory of the emotions," a new way of looking at our feelings. Porges's theory, elaborately detailed in the April 30 issue of the *New York Times*, resurrects the role of the parasympathetic nervous system and analyzes its multiple functions in light of evolutionary changes.

His contribution to the symposium, "Emotion: An Evolutionary By-Product of the Neural Regulation of the Autonomic Nervous System" could provide a way to put more "guts" into emotion research. Rather than concentrating on the sympathetic nervous system, which releases adrenaline in response to stress and activates the "fight-or-flight" response,

Porges emphasizes the other half of the autonomic nervous system—the parasympathetic system—which basically



Stephen W. Porges

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***The evolution of behavior must usually be inferred, rather than observed, because ancestral species are usually extinct, but David Crews finds among whiptail lizards a unique opportunity for the study of the evolution of sexual behavior; an ancestor and a descendant species live side by side, and can be directly compared.***

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## RESEARCH FROM PAGE 17

mediates immobilization, and the conservation of metabolic energy.

### Scared to Death

The single most important nerve in this system is the vagus nerve, or tenth cranial nerve. When strongly activated, the vagus nerve slows heart rate, slows or stops respiration (depending on species), and causes the digestive tract to empty. These are the hallmarks of complete terror, which essentially causes homeostatic systems to shut down. If severe enough, this response causes one to literally die of fright.

How can this make evolutionary sense? This extreme response is, for humans and for all warm-blooded animals, a vestigial remnant of an ancient response that serves the cold-blooded vertebrates quite well: When all else fails, a reptile can "play dead" for a few minutes, during which time the danger just might go away. However, once mammals became warm-blooded, they lost the ability to survive oxygen deprivation for more than a few seconds.

So what happened to the vagal system for shutting down homeostatic systems to facilitate "playing dead"? Part of it survives as this vestigial system that has the power to cause death from fright, but the rest of it became modified into our complex system of control over our organs of emotional expression—the facial muscles and the larynx, for example—and into a finely adjustable "brake" that allows us to rapidly adjust our metabolic output, for example to rapidly switch from speaking to listening, without involving the sympathetic nervous system at all. In short, an old system for regulating one of the most basic needs (i.e., oxygen intake) has been exapted to enable us to get what we need from other individuals (e.g., by smiling, frowning, talking), and in the process has created a whole new universe of physiological responses. The graded interplay of the ancient vagal "play dead" response, the sympathetic "fight or flight" activation pathway, and the newest vagal modulatory pathways, plus the visceral afferents by which we sense our bodies' responses, combine to create the emotional component of our experience.

### Neurogenic Evidence

A crucial piece of physical evidence Porges advances to support this interpretation is that the muscles and nerves involved in the expression of complex emotions (i.e., the facial and laryngeal muscles and the nerves that control them) all develop from the branchial arches of the embryo. These are the structures that become gills in fish, the structures originally dedicated to the regulation of oxygen supply. Known as the



David Crews

"vagal" of the cranial nerves because of its wide, wandering path of innervation throughout the body, the vagal nerve appears to suffer from an ever-wandering function, as well!

### On Pseudo-Sex, Lizards, and Evolution

The evolution of behavior must usually be inferred, rather than observed, because ancestral species are usually extinct, but David Crews finds among whiptail lizards a unique opportunity for the study of the evolution of sexual behavior; an ancestor and a descendant species live side by side, and can be directly compared. In this case, the descendants are parthenogenic (i.e., all the individuals are females), and they reproduce without sperm.

The loss of sexual reproduction in these animals must be relatively recent, because the immediate ancestor species (confirmed by genetic analysis) has both males and females and reproduces in the usual way. Although the parthenogenic lizards can reproduce without any sexual behavior if housed in isolation, they normally "go through the motions," alternating between male-like behavior (mounting) and female-like behavior (being mounted). In the bisexual species, male sexual behavior is stimulated by testosterone, acting on the anterior hypothalamus-preoptic area (AHPOA), and the AHPOA is larger in males than in females.

One might expect that this same brain nucleus, which is involved in the pseudo-male behavior of the parthenogenic lizards, would be enlarged since the pseudo-copulatory behaviors very closely resemble male behavior in the bisexual species. But it is not, and the sexual behaviors are not stimulated by androgen. Instead, progesterone has been coopted to play a role in initiation of male-like behaviors, and the AHPOA remains small and inactive, regardless of which pseudo-sexual phase the individual is going through. What's more, the typically "female" part of the hypothalamus, the ventromedial hypothalamus, is as well-developed in these animals as it is in the females of the ancestral species.

How did this behavior and its hormonal trigger evolve? Individual males of the ancestral bisexual species vary in their response to progesterone; some show typical courtship behavior in response to progesterone just as they do to testosterone. This preexisting variation in hormone response was therefore probably present in the individuals that gave rise to the new species and was incorporated as an essential part of its behavioral repertoire.

It may seem unexceptional to say, as did many participants at this conference, that behavior can be at the leading edge of evolutionary change. Perhaps what is most surprising is to uncover the ways in which complex behaviors have been cobbled together from bits and pieces of the most basic biology.

To order the full proceedings of the conference, contact the New York Academy of Sciences toll-free (800-843-6927 ext. 341). **Paul M. Rowe**

Paul M. Rowe is a freelance science writer based in Washington, DC.

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published often get derailed early in career. In the process, these scholars are placed in a position where they cannot succeed, and then we view their lack of success as confirming our prediction.

It is said that after the great psychologist Leerobyn Sedawes died, he went straight to heaven, where he was met by Saint Peter. Saint Peter pointed out a denizen of heaven strumming on a harp, and commented, "There you see the greatest psychologist we have here." Sedawes was baffled. "What are you talking about? My panel reviewed her proposals. No one liked her ideas at all. None of her proposals ever got funded. Why, down there, she never had a snowball's chance in hell to be any great psychologist."

"Precisely," said St. Peter.

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# STOP!

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## MISCELLANY

According to recent reports by the Research Institute on Addictions in Buffalo, New York, **heavy drinking** by fathers can negatively affect the quality of the **relationship between the mother and infant**. Preliminary results, published in the June 1996 issue of *Development and Psychopathology* show that infants of heavy drinking fathers are less likely to have secure attachments with their mothers. According to APS Member Rina Das Eiden, infants normally form attachments with the primary caregiver—usually the mother—and in sensitive and nurturing relationships, the attachment is secure. But when contacts are insensitive or inconsistent, that attachment may be an insecure one in which a child may pull away from the primary caregiver.

Eiden added that the father's alcohol use also contributes to the characteristics of the mother, such as depression and satisfaction with marriage. Mothers with heavy drinking partners reported more depression and less marital satisfaction than those with light drinking partners. These maternal factors play a large role in the relationship between a mother and infant, increasing the likelihood of an insecure attachment.

The **Human Capital Initiative** recently received a hearty endorsement from the President of the International Union of Psychological Science, Kurt Pawlik (who is also an APS member). During the Opening Ceremony of the **International Congress of Psychology in Montreal**, August 16, Pawlik addressed more than 2,500 attendees and touted efforts such as the APS-inspired Human Capital Initiative as necessary in taking psychological science into the next millennium.

"This International Congress of Psychology takes place at a time of far-reaching, global changes and major transitions. More than other sciences, psychology is facing special opportunities and challenges at the same time.... There is growing awareness today that individual quality of life, personal health, and future societal well-being will depend to a large extent on our ability to make responsible use of behavioral science knowledge," said Pawlik. "I sincerely wish that, in the years to come, efforts by psychologists will be continued, at a worldwide scale, towards a Universal Human Capital Initiative which will harvest, at an international scale, and at the doorstep of the new millennium, the best of present-day behavioral science research knowledge as we look ahead and face the foreseeable challenges beyond the year 2000!"

The truth is out there and APS's flagship journal *Psychological Science* is apparently helping to uncover it. Sightings of the periodical have been reported (by *The Washington Post* no less) in the waiting area of The Academy Group, a Northern Virginia firm of former FBI agents who spend their time studying the criminal mind. And what are they reading? In addition to *Security Management* and *Justice Quarterly*, the same journal APSers know and love. The group, made up largely of former staffers of the FBI's behavioral science unit, has recently signed on as a consultant to a new show brought to us by the same people who created "The X-Files."

## INTEGRITY FROM PAGE 16

response for a teacher, but because good pedagogy requires that we support our mentees. Often, we disagree with one another on theoretical or empirical grounds. Although we may be tempted to see such disputes as arising from others' dishonesty, they may be as genuine in their beliefs as we are.

Dishonesty can, of course, reflect a deliberate effort to deceive. Even so, the deceiver needs to justify what he or she does. During wartime, a political or military leader who deceives the enemy may feel fully justified. How different is their situation from that of a scientist feeling his/her deeds justified because he or she is on the brink of a discovery that has substantial benefit for society? There may be base motives, as well, as when a scholar engages in dishonesty simply to save or further his or her career. But some research suggests that these individuals felt fully justified in engaging in deception and have developed elaborate explanatory frameworks.

Although surveillance and punishment are necessary tools to maintain scientific integrity, we need to restrain our desire to use these as our principal weapons. Such techniques may have only limited utility and may, inadvertently, increase the level of dishonesty by making individuals less likely to admit errors. We need an environment in which we have internalized honesty in scientists and in which it is okay to reveal mistakes. We also need to reduce the stakes for scientists based solely on the outcomes of their research. Some psychological research suggests that, with enough pressure, almost anyone will engage in deception.

Some have argued that science is inherently self-correcting and that we should not worry about integrity because false findings would be corrected by failed replications. But the cost of following a line of research based on faulty data is very high.

Given the slow pace at which scientific discoveries accumulate, it does not seem a very workable solution. If adopted, it might further encourage dishonesty and reckless publication. Rather, we need to alter the current emphasis on individuals and work to change the environment in which science and scholarship are conducted. Our efforts should emphasize the support of honesty, rather than the detection and punishment of dishonesty, and we need to support honesty as a value.

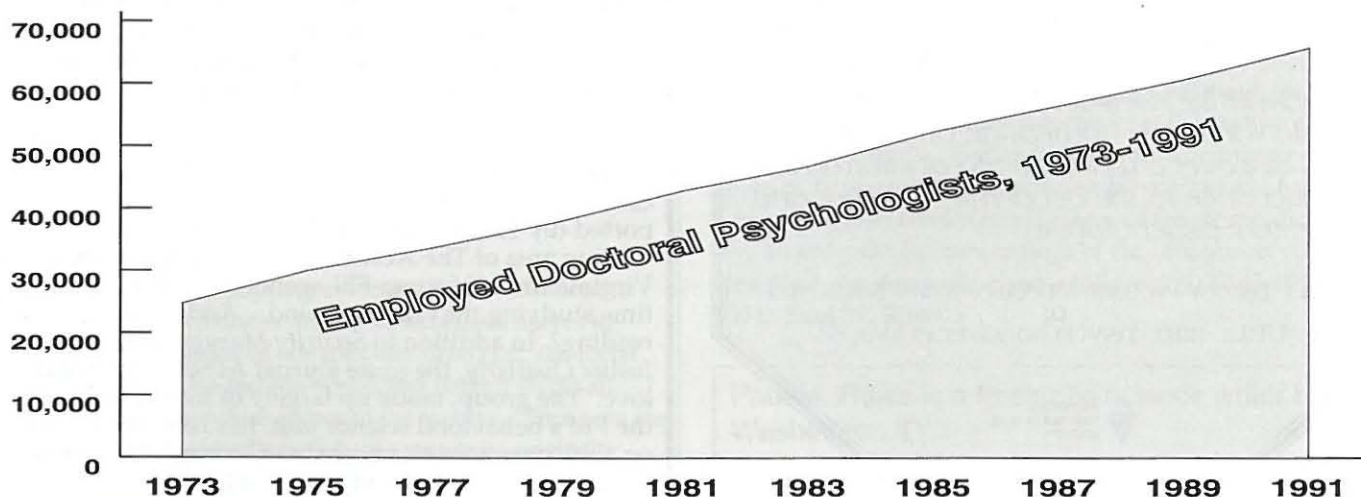
To avoid future debacles over integrity and their devastating effects on individuals and the scientific community, two tasks seem critical: First, we need to lessen the pressure to get significant findings (in both the statistical and natural sense). Those who review tenure cases, journal submissions, and grant applications need to moderate the emphasis on outcomes. Second, we need to educate ourselves and students about how to recognize the pressures that lead to dishonesty and help them respond to them to maintain integrity. The alternative to these changes is to establish a draconian system of surveillance that would make most of us cringe. None of us wants to live in a research environment where lawyers are integral members of our research team.

If psychological science were irrelevant to modern life, few would care if we were truthful or not. But society cares deeply about what we are learning and makes our work possible. We have an obligation to ourselves, as well as those who support our research, to ensure integrity. We must learn from recent scientific history and apply our knowledge of behavior to prevent incidents of scientific dishonesty, proven or unproven.

Leonard Saxe  
CUNY-GRADUATE CENTER

# Psychology Employment in Perspective

Employment trends among scientists and engineers with graduate degrees were included in the 1995 National Academy of Sciences' report *Reshaping the Graduate Education of Scientists and Engineers* and were calculated from information provided by the National Science Foundation. The 165-percent increase in the number of employed psychologists with graduate degrees was one of the largest increases among the 30 fields tracked.



## ELECTIONS FROM PAGE 4

generally think about a defendant's intent to commit a crime versus the assumptions about intent that are seen in the Model Penal Code currently being adopted in many jurisdictions. According to Darley, "the general thrust of the Model Penal Code is to move away from the views of ordinary people."

"The Model Penal Code tends to focus on a settled intent to commit a crime," he explained, "where people key more on the occurrence of the harm. So when I decide to rob a bank, once I form a settled intent, the Model Penal Code says 'that's it, you're guilty.'" On the other hand, he continued, "people seem much more willing to let things go farther toward the crime before they decide someone is guilty. They understand someone can form intents and then un-form those intents."

Darley feels strongly that criminal code drafters need to know about this kind of discrepancy, and that they should either be changing the law or educating people about their rationale.

### A Home to All

Darley's sentiments about APS echo those of Deaux. "We continue to need what APS was founded for," says Darley. "Explaining psychological science to our various constituencies, including funders, is a very important job. We can never rest about doing it."

Equally important, he adds, is the need to "communicate about our science to each other" through APS's publications and convention.

"There are fascinating issues at our boundaries," says Darley. Although he is in social psychology, which is decidedly not driven by technology, he nevertheless sees enormous implications for the field in the "remarkable pace of discoveries in neuroscience, the increasing ability of brain imaging technology to provide us with clues about memory and cognitive processing."

At another boundary, psychology has a good deal to say about the degree of trust that exists between individuals, as well as the trust individuals have in their social institutions, and the consequences of that trust for willingness to participate responsibly in social institutions. Establishing reasonable levels of trust in institutions may be critical to the emergence of civil societies in formerly Eastern-bloc countries. It may also be critical to continuing faith in several of our own society's institutions.

What does he hope to accomplish as a member of the APS Board? APS should "examine the patterns and subspecializations of science in our organization," says Darley, "to make sure we're providing a home to all areas. We want to give a strong signal of inclusion and make sure we're a place where everybody feels comfortable, where our scientific colleagues come to the party."

### East Coast Trifecta

If instead of heading down the New Jersey Turnpike toward



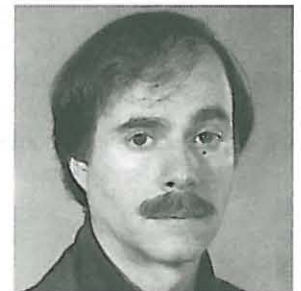
John Darley

Princeton, you go northwest to Ithaca, you'd be in for a long ride, for one thing. But that's where you'd go to find the other new APS Board Member, Stephen Ceci. Ceci is the Helen L. Carr Professor of Psychology at Cornell University, a lifetime endowed chair that was bestowed upon him in 1991.

Ceci teaches and conducts research in several areas of psychology. Author of approximately 250 articles, chapters, and books, Ceci gained national attention for his 1990 book, *On Intelligence...More or Less: A Bio-ecological Treatise*. In the book, which received critical acclaim for its boundary-crossing nature and is now in its second edition, he presented a new theory of intellectual development, synthesizing findings from cognitive, biological, developmental, and mathematical psychology.

Ceci shares with Deaux and Darley the belief that APS continues to serve an important galvanizing role for all of scientific psychology. He believes that we have entered a new era in which the research that is most likely to be funded in the future lies at the intersection of our traditional disciplinary boundaries. "It is becoming increasingly common for funders to issue RFPs and RFAs for problem-oriented research that crosses several boundaries," he commented. "Psychologists will need to collaborate with neurobiologists, linguists, and sociologists, to name just a few of the fields that are involved in trying to enhance education and learning, for example."

Further significant advances within the field of psychology will derive, he says, from researchers who cross-fertilize each other's scholarship and who dig deeper and with broader research tools and approaches to uncover more elegant discoveries and to develop more productive theories. "To do this, we will need to dig with a breadth that ensures that we interface with colleagues in other areas. I cannot imagine solving society's most pressing problems with only one set of disciplinary hands," he maintains.



Stephen Ceci

If you do take that trip to Ithaca, you'd better check to see if Ceci will be there. In addition to giving over 150 research talks at psychology departments around the world, he has been a keynote speaker at major psychological and psychiatric organizations in several countries. Ceci also is an expert on memory in children and has written extensively on the scientific aspects of children's testimony in the courtroom. He has been active in the professional debates over the controversial book *The Bell Curve* and memories of early abuse.

### Terms of Endurance

Ceci and Darley began their three-year terms on the APS Board in June 1996. And, as the eighth president of APS, Deaux will be the third to reign under the revised APS bylaws, which took effect in 1994 and established a three-year period of presidential service on the Board. So, Deaux will serve one year each as President-Elect, President, and then Past-President. **S.B.**

# Minority Psychology Scholars Awarded Fellowships

WASHINGTON, DC, AUG. 20—One hundred outstanding minority scholars have been awarded fellowships in the 1996 Ford Foundation fellowship programs, and among them are several psychology scholars. The programs, which are administered by the National Research Council, seek to increase the presence of underrepresented minority groups on the nation's college and university faculties. Awards are made to individuals of demonstrated ability to provide them with the opportunity to engage in studies leading to a PhD or ScD degree or to conduct advanced postdoctoral research.

Pre-doctoral and dissertation awards are made for study in research-based doctoral programs in selected disciplines that will lead to careers in teaching and research. Postdoctoral awards are made to recent doctorate recipients for work in selected areas of study. This year the programs awarded 50 beginning graduate students, 30 students writing their dissertations, and 20 recent PhD-recipients in national competitions. The Ford Foundation endeavors to support scholars of high ability in achieving their full potential and in attaining greater recognition in their respective academic fields.

This competition marks the second year an additional award was made at the dissertation level by the Ford Fellows' Fund, an account established by previous Ford Foundation awardees. These scholars made donations and secured matching funds to provide for an additional dissertation

fellowship. This effort again was supported by a generous donation from the Hitachi Corporation and by the Research Council, which matched the Ford Fellows' Fund contributions using interest income earned on the Ford Foundation grant.

This year's award pool includes 40 Blacks/African Americans, 30 Mexican Americans/Chicanos, 15 Puerto Ricans, 10 Native American Indians, and 5 Native Pacific Islanders. Of the fellows awarded this year, 22 are working in the social sciences; 17 are conducting research in the physical sciences, math, or engineering; 33 study the humanities; 16 are working in the life sciences; and 12 are studying in the behavioral sciences. A list of awardees in psychology appears below.

Information on the upcoming competition can be obtained in this month by contacting the Fellowship Office of the National Research Council (Christine O'Brien, Program Supervisor, Office of Scientific and Engineering Personnel, tel.: 202-334-2860; Internet: infofell@nas.edu). Contributions to the Ford Fellows' Fund can be mailed to the same address, to the attention of Ron Millar.

The National Research Council is the principal operating arm of the National Academy of Sciences and the National Academy of Engineering. It is a private, non-profit institution that provides independent advice on science and technology issues under a congressional charter.

## 1996 PRE-DOCTORAL FELLOWS IN PSYCHOLOGY

Valerie Denise Anderson  
*Duke Univ.*

David Cranford  
*Univ. of North Carolina-Chapel Hill*

Amanda Joyce Cumberland  
*Arizona State Univ.*

Tene Tuere Lewis  
*Univ. of California-Los Angeles*

Robert Ochoa  
*Univ. of Washington*

Lisa-Michelle Pina  
*Univ. of Virginia*

Laurimar Reveron  
*Cornell Univ.*

Andrea Denise Sewell  
*Rutgers Univ.*

## 1996 DISSERTATION FELLOWS IN PSYCHOLOGY

Joseph David Hovey  
*Univ. of Michigan*

Silvia Eugenia Molina  
*Pennsylvania State Univ.*

## 1996 POSTDOCTORAL FELLOWS IN PSYCHOLOGY

Stanley O. Gaines  
*Univ. of North Carolina-Chapel Hill*

Tammy J. Hatfield  
*Univ. of California-Irvine*

# 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: 414-424-7317, Bitnet: PERLMAN@OSHKOSHW; Internet: PERLMAN@VAXA.CIS.UWOSH.EDU

## Class Discussions: Promoting Participation And Preventing Problems

Thomas J. Kramer  
James H. Korn  
*Saint Louis University*

"I tried to have a discussion today, but hardly anybody said anything. You'd think a class of 95 students really would get into arguing about theory XYZ." Sound familiar? It's a common and chronic refrain of professors around the country.

And many attempts to inspire class discussions use the following format: The instructor lectures, then pauses, and then asks the class "What do you think about X?" Most students either try to look busy, continue to read the newspaper, or wait for this minor irritation to pass so they can continue to take notes. The only advice we have for instructors using this approach is: Don't bother!

### Goals of Class Discussions

A discussion is an exchange of ideas where all members of the group have an opportunity to participate and are expected to do so to some degree. Discussions are the best way to accomplish at least three important objectives: (1) to integrate course content with personal experience, (2) to explore the basis for feelings and

opinions of oneself and others, and (3) problem solving. Class discussion also is the best way to accomplish some important educational objectives, such as developing critical thinking skills and learning to appreciate the ideas of others.

Guidebooks that provide tips for beginning teachers always include chapters on managing discussions, with advice on how to handle problems such as students who talk too much or not at all. These books emphasize the importance of preparing for discussions, with the preparation usually recommended for teachers rather than the students. Our purpose in this column is to suggest techniques that can be used to help students become good participants in class discussions, and perhaps prevent problems from arising later in the semester.

### Practical Problems

#### Large Classes and the Limits of Time and Space

In theory, size is no limit for small group discussions. Any class can be divided into subgroups. The logistical limits are set primarily by space and time. There should be sufficient space to minimize noise and cross-talk between groups, and time may be needed for reports from each group to the whole

class. The sheer size of a class may put constraints on small group discussion; imagine trying to form 100 small groups in a class of 600!

The limits of space and time lead us to conclude that discussions, as we have defined them, are not practical in classes larger than 100. You can have question-and-answer sessions, develop a dialogue with a few favorite students, and use writing or other individual active learning exercises, but these are not discussions. In large classes students can be asked to pair up or to form "buzz" groups, but there is no control over the content of the conversations and it would be difficult to do more than sample the results of these discussions.

### Discussion Group Size

We think that discussions are most effective in groups of 4-9, and suggest breaking larger classes down into multiple small groups. As the size of the whole group increases beyond ten it becomes more difficult for all to be heard and easier for students to fall into passivity while the teacher assumes a more dominant role.

### Forming the Discussion Group

How do you form the groups? If you let students choose their own groups, those who know each other will stay together,

which may lead to a situation where one or two strangers in the group are ignored. Counting off is a better method of assignment to groups. For example, start in the front row and count off by fives. We favor changing the composition of the groups during the semester so that students encounter different learning styles.

### The Fishbowl Technique

It is impossible to avoid passivity when classes have more than 25 students, but using the fishbowl technique allows the instructor to involve all students in discussions some time during the semester. Select 6-8 students to form an inner-circle for the discussion. The remaining students are observers and are responsible for taking notes on the content of the discussion and forming questions or comments of their own. When the inner-circle discussion has been completed, time should be allowed for other students to comment or ask questions. If time permits, a new inner-circle can be formed. Space is not a problem with the fishbowl, but class size again presents limits. In larger classes there will be fewer opportunities for participation, and shy students will be even more reluctant to become the focus of attention.

### Quiet or Shy Students

Even in small groups some students are quiet. When we use learning logs, these students often describe their anxiety about revealing their ideas. Stating that all students are expected to participate in a discussion is likely to heighten that anxiety.

We have these suggestions concerning shy students. First, the course description should make it clear that discussion is expected, and this should be emphasized in the first meeting of the class. Second, help should be available for shy students, from either the instructor or a counseling center. We strongly prefer helping students learn to participate, rather than helping them avoid taking part. Third, be accepting of degrees of participation. Students who have the courage to confront their shyness need time to develop, and all of us have "bad hair" days, when things are going terribly, and we need to be quiet.

### Promoting Participation

There are three things an instructor can do to promote full participation in class discussions (i.e., active listening as well as talking) and to prevent the most common discussion problems: (1) establish clear ground rules, (2) clarify instructor and student roles, and (3) provide training.

#### Establish Ground Rules

We define a discussion as an exchange of ideas where all members of the group have an opportunity to participate and are expected to do so to some degree. It is difficult for students to participate, however, if the instructor is doing almost all the talking. Most instructors dominate the conversation even though they may not intend to do so. Brown and Atkins (1988) determined that instructors talk as much as 86% of the time during discussions. Establishing ground rules will help to ensure more balanced participation.

When a group agrees publicly on how to carry out its work, the purpose is not to stifle behavior but to reduce ambiguity, promote participation, and maintain order. Ground rules can be set either by asking students to participate in developing them, or suggesting a list that is open to modification. Asking the class to generate their own rules increases commitment, but when the course is just starting it seems reasonable to suggest guidelines with input from the class, and be open to revision after a few discussions have taken place.

We assume that we want people to be open to sharing their views, that we want as diverse a set of views as possible, that participation is to be maximized, and that agreement is not a necessary outcome. Given these assumptions we offer the following guidelines that apply to both the instructor and the students (adapted from Schwartz, 1994):

1. The discussion always starts with a question that all members understand.
2. Some level of participation is expected of everyone, but members may participate at different rates or levels.
3. Domination of the conversation by one or two people is unacceptable.

4. Let people finish their thought; do not interrupt.
5. Listen. Concentrate on what others are saying rather than concentrate on formulating a response.
6. Use the techniques of paraphrasing and summarizing to increase understanding.
7. Ask for and give the basis for opinions or observations.
8. Divergent views are encouraged. Assume that everyone may have a *piece of the truth*.
9. Debating the goodness, badness, right or wrong of a position is discouraged.
10. Be specific. Use examples whenever possible.
11. Keep the discussion focused on the question at hand.
12. Share, rotate roles and responsibilities for discussion management within the group.

Post your ground rules during class discussions.

#### Clarify Roles

The instructor can fill one of three roles: leader, facilitator, or observer. For a successful discussion it is critical for the instructor to understand his or her role and to clarify it for the class. At the same time, students should understand that they are expected to participate at an appropriate level, listen with an open mind, show respect for the views of others, and follow the ground rules established for the class.

#### Leader

The instructor as *leader* is an active participant who contributes ideas when they seem relevant but who focuses on asking questions rather than giving answers. Given the ground rules above, the instructor needs to move toward being an equal partner in the discussion and avoid dominance. Instructor dominance can be reduced by having an observer monitor the duration of the instructor's speaking, until it is reduced to 50 percent or less. The instructor also can "boomerang" questions back to the class so that students will provide answers.

SEE TIPS ON PAGE 23



## TIPS FROM PAGE 21

### Facilitator

As *facilitator* the instructor does not participate in the discussion itself but helps to manage it. This includes keeping the conversation on track, helping to even out the amount of participation by individuals, paraphrasing and summarizing, and encouraging students to respond to one another.

### Observer

The instructor must become an *observer* when the class is divided into small groups. In this format one student in each group is assigned the facilitator role. This student helps to manage the conversation in the small group just as the instructor might do, including holding the group accountable for following the ground rules. Another student has the responsibility of summarizing and reporting out to the larger group on the main points brought out in the discussion. As observer, the instructor clarifies the discussion questions in the beginning, monitors the process and progress of each group, manages the reporting out, summarizes points across the groups, and draws out the implications of the discussion.

Involving students in the facilitation and management of discussions provides them with an opportunity to learn valuable communication skills, to begin to see the process that occurs in a group interaction, to assume more responsibility for their own learning. It also prepares students to operate more effectively in groups outside the classroom.

### Provide Training

Active participation in a discussion includes speaking at appropriate times and listening carefully to understand what others are saying. Most students and

teachers have had no formal training in these skills, so we suggest that this be provided either by the instructor or a colleague with more experience in this area. We suggest devoting class time to the introduction, demonstration, and practice of most or all of the following:

- ◆ participating
- ◆ paraphrasing and summarizing
- ◆ listening
- ◆ accepting divergent views
- ◆ keeping on track
- ◆ dealing with domination
- ◆ minimizing interruptions
- ◆ handling conflict
- ◆ enforcing the ground rules
- ◆ facilitating

How much time should be devoted to training? You may have a lot of material to cover, but consider your objectives. If you want to accomplish those objectives for which discussion is best suited, then it is worth the time. We disagree on how this should be done. Kramer two hours of training is time well spent. Learning these skills requires many examples and a reasonable amount of practice.

Korn thinks that in 45 minutes, an instructor can explain the reasons for discussions, what makes a good discussion, present the ground rules, show a video tape that illustrates the skills, and find a few volunteers who will model what has been learned. Feedback after later discussions will provide the advanced training. If even 45 minutes seems like too much, then discussions may not be that important for you and you shouldn't mess up your lectures with all that noise from students.

Regardless of how much time one allocates to training in the beginning of a course, discussion skills require reinforcement. After each of the first two sessions

review the discussion process, how students felt about it, and how it might be improved. Then make appropriate adjustments in the discussion format.

It is impossible to guarantee the success of all class discussions, but we think this method is more likely to work if you know what your objectives are and establish ground rules for your class. Clarify your role as leader, facilitator, or observer, and then help students understand what is expected of them by providing training in discussion techniques. Finally, evaluate both the discussion process (e.g., the extent to which the rules were followed) and the outcomes. One final bit of advice is to be patient and trust the process.

### Suggested Reading

- Brown, G., & Atkins, M. (1988). *Effective teaching in higher education*. London: Methuen.
- Davis, B.J. (1993). *Tools for teaching*. San Francisco: Jossey-Bass.
- Doyle, M., & Straus, D. (1983). *How to make meetings work*. New York: Jove.
- Schwartz, R.M. (1994). *The skilled facilitator*. San Francisco: Jossey-Bass.

**Thomas J. Kramer** is Professor of Psychology at Saint Louis University. He teaches undergraduate courses concerning groups and teams that rely heavily on experiential learning.

**James H. Korn** is Professor and Chair of Psychology at Saint Louis University. His current research studies how we become teachers and learn to teach psychology.

## Your Search Ends Here!

The *APS Observer* Index is now online!!!

Can't remember when the NIMH behavioral science research report relating to mental health was released?

Or when the obituary on Roger Sperry appeared?

How about when you were featured in the *Observer's* People section?

The *APS World-Wide Web* page now features an Index in which *Observer* issues are organized by subject, title, and date of publication. The index dates back through March 1990 and will be updated annually.



# Obituaries

## Social Psychologist Charles Graham McClintock (1929-1996)

Charles Graham (Chuck) McClintock died on Wednesday, July 24, 1996, in his home in Iowa City, succumbing, finally, after a long, courageous struggle with cancer.

Chuck began his work in psychology at Oberlin College, from which he graduated in 1951. He attended the University of Michigan where he earned an MA and a PhD.



His PhD was awarded in 1956 in social psychology. Supervised by Daniel Katz, his dissertation dealt with the functional role of attitudes, and his early publications focussed on ego-defense and attitude change.

Chuck left the University of Michigan to take a job as an Assistant Professor at the University of California-Santa Barbara, where he stayed until he retired in 1992. He capped his career at UCSB by chairing the psychology department there from 1990 until 1992. He left Santa Barbara permanently to move to Evanston, Illinois, to join his wife, Terry Boles, who was a postdoctoral fellow at Northwestern University. Terry and Chuck moved to Iowa City when Terry took a job as an Assistant Professor of Management and Organizations in the School of Business Administration at the University of Iowa. When he arrived at UCSB, Chuck was the first social psychologist on the faculty.

When he retired, the social-personality program had grown to seven or eight positions and had earned international distinction. More than any other single person, Chuck McClintock guided and nurtured the development of this program, and those of us who were privileged to be associated with it knew that its distinctive collegiality, inclusiveness, and energy were the unique legacy of its founder.

Even though he never permanently left UCSB during his career, Chuck enjoyed many temporary stints in Europe. He spent two years (1963-64 and 1970-71) and part of another (1985-86) at the Laboratory for Experimental Social Psychology at the University of Leuven in Belgium, a year (1978-79) at the London School of Economics, and another (1967-68) at the Institute of Anthropos at the University of Athens. These European opportunities were supported by prestigious competitive fellowships from the Fulbright Program and the Ford Foundation, as well as a Cattell Fellowship.

While his work in graduate school focussed on attitude change, there were early signs that his interests were shifting toward social decision making, the domain in which Chuck McClintock made a large and permanent impact. Papers on risk-taking, deterrence, and leadership foreshadowed his germinating interest in decision processes. Moreover, he never lost his interest in understanding the

role of individual differences in behavior. He began by measuring individual differences in ego-defense intensity and crowned his career with an exploration of the implications of individual differences in social orientations in interdependent decision making.

Chuck was one of psychology's pioneers in the use of experimental games to study social interdependence. His first contribution using this methodology (McClintock, Harrison, Strand, & Gallo, 1963) vividly manifests three of Chuck's enduring research traits: the inclusion of at least one independent variable that is an individual difference measure (in this case internationalism-isolationism), the inclusion of at least one independent variable that is situationally manipulated (in this case the strategy of the other player), and the generous inclusion of his students in the project and in the credit for the project (in this case Al Harrison, Susan Strand, and Phil Gallo). These students, I should note, were not doctoral students because UCSB's psychology department was not authorized to grant PhDs until 1964. Harrison and Gallo were masters students and Strand was an undergraduate. All three eventually received PhDs in social psychology, a fact that testifies to the contagiousness of Chuck's enthusiasm for research, a quality he never lost.

Of Chuck's many scientific contributions to social psychology, including the publication in 1972 of an innovative text, *Experimental Social Psychology*, the one for which he will be the most remembered will almost certainly be his explorations of what he originally called "social motives" and later called "social values." He and his students and colleagues discovered that subjects approached interpersonal decision-making tasks, like experimental games, with what appeared to be different objectives. Sometimes they seemed to want to promote the welfare of the group (cooperativeness), sometimes they seemed to be interested in only their own welfare (individualism), and sometimes they seemed to want to excel relative to others (competitiveness). Chuck McClintock devoted much of his career to the study of these differences. He explored ways of measuring these tendencies, he examined the processes by which the tendencies were socialized in young children, and, of course, he used the opportunities afforded him by his international connections to probe for cultural differences in these social values. His work has had a profound impact in documenting the many ways in which these different social values transform simple decision problems into psychologically and behaviorally distinct phenomena.

Chuck's impact comes from the heart as well as the mind. He was a champion of the powerless, which made him a guardian as well as a mentor to his students. This fact explains the affection and dedication that Chuck's ex-students, now scattered across four continents, feel for him. For those of us who were fortunate to know him personally and to work with him, Chuck McClintock will be remembered for his generosity, his loyalty, and his compassion. He was a kind and loving colleague and friend who will long be remembered and missed.

DAVID M. MESSICK  
NORTHWESTERN UNIVERSITY

### Reference

McClintock, C.G., Harrison, A.A., Strand, S., Gallo, P. (1963). *Journal of Abnormal and Social Psychology*, 76, 631-636.

# The Student Notebook

Rodolfo Mendoza-Denton - Editor

Introducing...

## Your 1996-1997 APSSC Officers

The APS Student Caucus held a business meeting at the Eighth Annual Convention to elect its officers for 1996-1997. To help us welcome these APSSC officers, provided below is some brief background information on each of the seven new executive council officers. Among them are both familiar faces from last year's Council as well as some completely new faces. Together, they represent a variety of academic institutions, backgrounds, and interests. This year's elected APSSC Executive Council members are:

### **Nikki Scarberry**

*President*

Nikki is currently in her third year at Texas Christian University. The general experimental program, with its emphasis in Social Psychology, has provided a way for Nikki to actively pursue her research interests in stereotypes, prejudice, attitudes, and ways of reducing prejudice.

Nikki has been involved in the Student Caucus for about a year and a half. In that time she has acted as the Mentorship Committee Chair and the Volunteer Coordinator. Nikki's goals for the new APSSC Board are to continue to search for new ways of reaching students. Getting students involved is one of the main focuses of the new caucus as is developing new and exciting ways of meeting the growing information needs of students entering graduate school or those looking for a job. The new board also wishes to provide an outlet for students to voice their opinions and concerns. Nikki looks forward to watching the organization grow in its importance to students.

### **Susan Perry**

*Graduate Advocate*

Susan is starting her third year of graduate study at Kent State University in experimental psychology. Her research interests include auditory perception and music cognition, and she is currently focusing on developing a geometric representation of simple melodies.

Susan served last year as Student Notebook editor. Her goals in her new position as graduate advocate are to: (1) increase student submissions for the APSSC Student Research Competition and Small Grant Fund Award, (2) increase graduate student involvement in the APSSC, and (3) serve as a voice for graduate student affiliate concerns in APS.

### **David Bohn**

*Undergraduate Advocate*

David is starting his senior year at Cornell College, a small, liberal arts college in eastern Iowa. He plans to double major in psychology and fitness. He has been involved in a variety of activities on campus including varsity soccer and track, the student alumni association, Pi Sigma Alpha (Spanish Honor Society), Mortar Board, and Psi Chi (of which he is president). He recently collaborated on a study exploring the relationship of jealousy and self-esteem in relationships.

David hopes that with his background in research, he can reach other undergraduate students in psychology and increase interest in undergraduate research. David believes that the most important characteristic he brings to this position is his age. "I can help address undergraduate concerns (e.g., What do I need to do to get into graduate school? What are some ideas for research? What can I do if I don't want to go to graduate school right away?)," states David. "I can help bring awareness to a younger generation of scientists who want to be more adequately prepared for the future."

So if you have any questions, concerns, comments, or ideas, send them his way. David would like to interact with other undergraduate students and work on publishing their concerns and ideas here in the Student Notebook.

### **John Jewell**

*Communications Director*

John is a third-year doctoral student in experimental psychology at Kent State

University. His research interests include realism in virtual reality and global representational models of space perception. As one of the "new faces," this is John's first term as a member of the Executive Committee of the APSSC. But he is not new to APS, as he has presented findings from his research endeavors at several of the past APS conventions and also has participated as a reviewer for the APSSC's Small Grant Award Program held each spring.

John would like to encourage greater use of the APSSC web pages (located at URL site <http://psych.hanover.edu/APS/APSSC/apssc.html>). John, in cooperation with the other officers of the APSSC, will regularly update the APSSC web pages in order to keep all chapters and interested individuals up to date with the latest news and information. These web pages are one of the key vehicles by which the APSSC can disseminate information and receive feedback.

### **Deana Julka**

*Volunteer Coordinator*

Deana is starting her fifth year of graduate study in social psychology at the University of Notre Dame. Her research interests lie in the area of attitudes and persuasion. In particular, she has been working on providing an experimental test of functional theories of persuasion. She has looked at applying this approach in an advertising paradigm and is currently researching how to increase organ donor participation, using a functional approach.

Deana is a newcomer to involvement in the APSSC at the national level. While recently presenting a poster at the eighth annual APS meeting, she read some of the literature concerning APSSC, became interested and attended the APSSC business meeting where she was nominated and elected to her current position. She hopes to increase awareness of the programs and opportunities available through the APSSC (e.g., Mentorship Program, Travel Grants)

SEE OFFICERS ON PAGE 46

# Searching for Jobs in Academia: Interviewing for Positions That Emphasize Teaching

In his July/August article in the STUDENT NOTEBOOK, Mitchell Metzger discussed the "do's and don't's" of applying for teaching/research positions at the university level. What happens, though, once you have sent in your applications? As part of our ongoing series on searching for jobs in academia, Metzger offers some additional insight into how to prepare for interviews at small colleges whose emphasis is on teaching.

For more tips on landing a teaching position, see the March 1994 *Observer* TEACHING TIPS column, How to Land that First Teaching Job, by B. Perlman, S. McFadden, and L. McCann. And Kathleen Morgan's exhaustive three-part series, A Guide to the Academic Job Search, which appeared in the STUDENT NOTEBOOK (Sept. 1992 and Jan. and Mar. 1993), has been a very useful guide for many aspiring young academics. But to gain an added advantage in your job search, you can learn about the perspective of the potential employer in a 1996 book by Perlman and McCann: *Recruiting good college faculty: Practical advice for a successful search*.

If you would like to see specific topics addressed in this section of the STUDENT NOTEBOOK, or if you want to author an article for this series, contact the STUDENT NOTEBOOK Editor or the Graduate Student Advocate.

Mitchell M. Metzger  
*Kent State University*

For those interested in a career in academia there is more than one option for employment: research-only positions, teaching-only positions, and positions that give you the opportunity to do both.

The interview process itself depends on the school and the position being filled. A large university (or small college) that encourages faculty to conduct research will be very interested in your research skills, as well as your ability to instruct students in the classroom. On the other hand, an institution that does not have laboratory space or resources to fund research will be primarily interested in your teaching ability. While a school without research facilities may have an interest in what kind of research you do, chances are your research skills will not play as large a role in obtaining a position at a smaller institution such as this. For example, the positions for which I interviewed were to fill teaching slots in small colleges, and most of the questions I received during the interview were related to my teaching skills and teaching experience.

## Research the School and Faculty

Before attending an interview, do some research on the institution and look up some

information about the faculty in the department. This serves two purposes. First, you will feel more comfortable about your visit the more you know about the college and the people that work there. Second, your knowledge of the school and faculty will demonstrate to the search committee that you are truly interested in the position. It never hurts to be as prepared as possible, and this is certainly a step in the right direction.

## In Action

Often, especially if you are applying for a teaching position, the search committee would like to see you in action. If classes are in session during your interview you may be asked to teach a section of a class, or, if classes are not in session, you may be asked to give a small presentation to the search committee. If you are given a choice as to the topic of your lecture or presentation, choose the most interesting topic you can think of. It is much easier to talk about things that you find interesting yourself, and this will lead to a better presentation.

## No Right or Wrong Answers

Specific to my personal interview itself, there were a few general questions that all of the members in the search committee

## APSSC Officers ♦ 1996-1997

Each Executive Council member (see below) welcomes students and others to contact them about any concerns relevant to the member's respective office.

### Executive Council

#### President

Nikki C. Scarberry  
Department of Psychology  
Texas Christian Univ.  
Fort Worth, TX 76129  
Office: (817) 921-7414  
Fax: (817) 921-7110  
NSCARBERRY@DELTA.IS.TCU.EDU

#### Graduate Advocate

Susan R. Perry  
Department of Psychology  
Kent State Univ.  
Kent, OH 44240  
Office: (330) 672-2166  
Fax: (330) 672-3786  
SPERRY1@PHOENIX.KENT.EDU

#### Undergraduate Advocate

David Bohn  
Box 252  
Cornell College  
Mt. Vernon, IA 52314  
DBOHN@CORNELL-IOWA.EDU

#### Communications Director

John J. Jewell  
Department of Psychology  
Kent State Univ.  
Kent, OH 44240  
Office: (330) 672-2166  
Fax: (330) 672-3786  
JJEWELL@PHOENIX.KENT.EDU

#### Volunteer Coordinator

Deana Julka  
18C O'hara-Grace  
Notre Dame, IN 46556  
Office: (219) 634-3144  
DEANA.JULKA.2@ND.EDU

#### Student Notebook Editor

Rodolfo Mendoza-Denton  
c/o Psychology Department  
406 Schermerhorn Hall  
Columbia University  
New York, NY 10027-7131  
Office: (212) 854-8166  
Fax: (212) 854-7004  
RODOLFO@PSYCH.COLUMBIA.EDU

#### Past-President

Christopher D. Ratcliff  
Department of Psychology  
Texas Christian Univ.  
Fort Worth, TX 76129  
Office: (817) 921-7414  
Fax: (817) 921-7110  
CRATCLIFF@DELTA.IS.TCU.EDU

STUDENT NOTEBOOK *continued*

## STUDENT NOTEBOOK *continued*

wanted me to address. Your "answers" to such questions will vary with individual instructors. Questions such as "What is your teaching style?" or "How do you motivate your students and capture their interest during your lectures?" easily could have 100 different, but reasonable, answers if they were asked of 100 different instructors. The main idea is to be prepared to answer questions about the way in which you instruct your classes.

There are no "right or wrong" answers to these questions, and the search committee is simply trying to get an idea of your style in the classroom. Questions that are specific to individual institutions will also come up. Some committees might want to know what your grading policy is and how you would feel about giving a failing grade to a student who is paying for his/her own education. I had interviewed for a position at a college where women made up 94 percent of the student population, and was asked how I would feel about instructing mainly females. The thing to keep in mind is to be prepared for any kind of question, because it is impossible to predict what will be asked of you.

You should have a few questions to ask the search committee as well. Your inquiries will serve to demonstrate your interest in the institution and also provide information you may find useful if the position is offered to you. For example, answers to questions such as "What is the quality of the students?" or "How is the tenure policy?" will factor into your decision. If you are not familiar with the area, who better than the search committee to ask "What is it like to live here?". The purpose of an interview should not be simply for the search committee to find out about you but for you to learn as much as possible about your (hopefully!) future place of employment. ♦

### Check out the APS Student Caucus Web Site!

The APSSC web page has moved to the same location as the APS web homepage. APSSC web page coordinator John Jewell welcomes you to come check out our new digs at:

<http://psych.hanover.edu/APS/APSSC/apssc.html>

## Attention APSSC Chapter Coordinators...

In an effort to increase the communications between the APSSC and its local chapters at various colleges and universities, the APSSC Communications Director would like to compile a list of all chapters and their respective coordinators. This information will be used to create a web page listing of the chapter, its coordinator, an email address for that coordinator, and a web page address for their college / university and its psychology department. This information will make it easier for all to communicate and it is simply good public relations for the chapters and APSSC. Chapter representatives are encouraged to send the following information to John Jewell via email (jjewell@phoenix.kent.edu with the subject heading reading APSSC - chapter):

- ◆ The name of the college or university at which the chapter resides.
- ◆ The name(s) of the coordinator for the local chapter.
- ◆ An email address for the coordinator.
- ◆ A web page address (URL) for the home page of the college or university.
- ◆ A web page address for the psychology department at that college or university.

Thank you in advance for providing this information.

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and to increase student participation.

#### Rodolfo Mendoza-Denton

*Student Notebook Editor*

Currently a fourth-year graduate student at Columbia University, Rodolfo's main academic focus lies in understanding how individual and cultural factors interact to yield behavior. He hopes that his dissertation will address the mediating effects of culture, rejection sensitivity, and emotional regulation on aggression in pre-adolescents.

As newly appointed editor of the Student Notebook, Rodolfo would like to see these pages be not only a forum for discussions on various student issues, but also a source of reference for resources available to students through APS. He hopes to assist in increasing student involvement in the APSSC by featuring articles about what the Student Caucus offers, how students can take advantage of its services, and how to get involved. Rodolfo is looking for innovative contributions to the Student Notebook that would be of benefit and interest to students of psychology nationwide.

#### Christopher Ratcliff

*Past-President*

Christopher will be finished with his dissertation in December of 1996. He is currently employed in an industry position that is allowing him to use all of the skills that he learned while in the general experimental program at Texas Christian University. Chris has been on the Caucus for about two and a half years and looks

forward to contributing to the new Student Caucus in any way he can.

As president of the APS Student Caucus, many of Chris's goals were accomplished. He sought to gain more student involvement and to provide a channel for students to find valuable information to further their professional growth. As a result, the Caucus has experienced an increase in the number of students that are involved. The Caucus also has become a source for students to turn to when in need of information. He feels that the 1995-1996 Caucus made great strides in meeting the needs of its students but hopes the new committee will continue to strive to reach out to other students.

### APS STUDENT AFFILIATES: EXPRESS YOURSELF

The APS Student Notebook is *your* space; take advantage of it! We are always on the lookout for contributions from student affiliates: articles (500-600 words), letters to the editor, even real-life dramas. Through the Student Notebook you can share your thoughts with other students around the nation. This issue's assignment: The Eighth Annual APS Convention as Seen Through a Student's Eyes. Tell us what you thought and what you experienced at the meeting. Send your draft contribution to:

Rodolfo Mendoza-Denton  
APS Student Notebook Editor  
c/o Psychology Department  
406 Schermerhorn Hall  
Columbia University  
New York, NY 10027-7131  
Office: (212) 854-8166  
Fax: (212) 854-7004  
RODOLFO@PSYCH.COLUMBIA.EDU

# Organizational Profile

## Southeastern Psychological Association

### Origins and Purpose

The founding meeting of the Southeastern Psychological Association (SEPA) was in September 1954 and was largely due to the work of John B. Wolfe of the University of Mississippi. The first annual meeting was held in Atlanta in May of 1955. Some were initially concerned that SEPA would infringe on the interests of the Southern Society for Philosophy and Psychology. However, it was argued that psychologists in the southeastern United States needed their own regional association because their methods were sufficiently different from those of philosophy. Furthermore, SEPA could affiliate with APA, whereas the Southern Society could not.

### Membership

Annual membership dues are \$20 for members and \$5 for students. Convention registration is \$35 for members, \$60 for nonmembers, and \$5 for student affiliates and \$10 for nonmember students (prior to March 1). Membership is open to students currently enrolled in psychology programs and professionals in psychology.

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

<i>President</i>	Jacquelyn W. White <i>Univ. of North Carolina-Greensboro</i>
<i>Past-President</i>	Jennifer C. Friday <i>Centers for Disease Control, Atlanta</i>
<i>President-Elect</i>	Nathan W. Perry <i>Univ. of Florida</i>
<i>Secretary-Treasurer</i>	Rosemary H. Lowe <i>Univ. of West Florida</i>

### BACKGROUND

SEPA serves the psychological community primarily through its annual meetings and newsletters, as well as a Visiting Scholars Program. The annual meetings are characterized by continuing education activities, invited addresses, symposia, paper sessions and poster sessions reflective of the diverse scientific and professional interests of its members. The meetings are punctuated by true southern hospitality. Attendees are friendly, relaxed, and supportive.

SEPA is particularly proud of the high level of participation by women, ethnic minorities, and students in its program activities. In fact, SEPA's Committee for Equality of Professional Opportunity, charged with dealing with issues affecting all underrepresented groups in psychology, grew out of the Commission on the Status of Women, which was formed in 1972 to ensure the equal status of women in psychology in the southeast and SEPA. Scientific psychology for the next generation is advanced through an undergraduate student poster session (co-sponsored with Psi Chi) and two student research award programs (described below).

#### Meetings

SEPA also encourages various groups to affiliate with its annual meeting. Regular participants include Psi Chi, the Southeastern Society of Social Psychologists, Southeastern Workers in Memory, Southeastern I/O Psychological Association, Association of Heads of Departments of Psychology, Council of Undergraduate Psychology Programs, Psi Beta, Council of Teachers of Undergraduate Psychology, and Directors of Psychology Training Clinics.

In 1997 SEPA will meet in Atlanta, April 3-6. We will be meeting Thursday through Sunday. In Atlanta we will enjoy all the benefits of a city that was spiffed up for the recent Olympics. The deadline for submissions is October 15. SEPA continues to have a strong emphasis on professional continuing education in conjunction with its annual meetings.

#### Awards

SEPA has two student research award programs, one which honors the top research papers on issues related to gender or minority issues and the other honors papers in areas of basic psychological research.

Be on the lookout for our SEPA homepage now being constructed for the world-wide web.

#### Contact:

Frances Y. Dunham  
Administrative Office  
University of West Florida  
Pensacola, FL 32514  
Tel.: 904-474-2070