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The Industrial-Organizational Psychologist

TIP THE INDUSTRIAL-ORGANIZATIONAL PSYCHOLOGIST

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TIP The Industrial-Organizational Psychologist

Vol. 38/No. 4 April 2001

FEATURED ARTICLES

EDITORIAL DEPARTMENTS

NEWS and REPORTS

A MESSAGE FROM YOUR PRESIDENT

Nancy Tippins

I seem to recall that many SIOP presidents have begun their last column by marveling at their last column and expressing the sentiment, "I can't believe a whole year has elapsed." I share those feelings. In so many ways, I feel like I'm just getting started. Fortunately, most of the progress of the Executive Committee is based on the work of our committees and will continue regardless of who is president. Since this is the last time I get to communicate in my own personal *TIP* column, I'd like to start this column with some official thanking.

Thank You

TIP doesn't have enough pages for me to provide you the details of what each of these people has accomplished, so let me give you a quick overview. The elected officers of the Society (**Bill Macey**, president elect, **Angelo DeNisi**, past president, **Janet Barnes-Farrell**, secretary, **Ray Johnson**, financial officer, **Ann Marie Ryan**, member-at-large and chair of the Long Range Planning Committee, **Mike Burke**, member-at-large, **Katherine Klein**, member-at-large, and our APA Council Reps, **Georgia Chao**, **Neal Schmitt**, **Mary Tenopyr**, **Wayne Camara**, and **Kevin Murphy**) assumed a huge responsibility when they agreed to run for SIOP office. Each has specific duties related to the office but also has general obligation for the stewardship of the Society. Bill and Angelo have been wonderful advisors to me throughout this year and probably kept me out of a lot of hot water that I didn't even know was out there. In addition, Bill took on responsibility for one of our newest and most important enhancements to the Conference, Technology Sunday. Our members-at-large had an unusual amount of work to do this year ranging from developing requests for Foundation money to planning our long-range planning session. Somehow, Ann Marie, Mike, and Katherine managed to do it all. Janet has ably served us all as secretary, and Ray has produced the most detailed financial analyses I've ever seen. APA provides a wealth of opportunities and many perils for the inattentive. Georgia, now replaced by Kevin, Mary, and Neal have stayed on top of everything.

Our committee chairs do a tremendous amount of work throughout the year. This year, **Tim Judge,** chair of the Awards Committee, made it seem like an easy task to review the nominations of our brightest and best for SIOP's most important awards. **Jan Cleveland**, chair of the Fellowship Committee, did such a good job that she increased the number of nominations for fellowship to a record 22! There will be special place in heaven for all our *TIP* editors and **Allan Church** has been one of our best. His patience with late column writers is legendary. **Mort McPhail**, the chair of the State Affairs Committee, has taken on one of the most difficult committee chairmanships we have. Understanding state laws regarding licensure is complicated enough; then we added APA and the Licensure Task Force. **Mickey Quiñones,** chair of the Education and Training Committee, shared responsibility for the Licensure Task Force while keeping all our Education and Training initiatives moving. Chair of the APA Program Committee is a demanding job and sometimes under appreciated by those of us who no longer attend APA. **Janis Cannon-Bowers** has ensured that SIOP's program at APA will be outstanding regardless of how many of us are there to enjoy it.

Laura Koppes, our historian, will go down in SIOP's history as the individual who made us aware of our intellectual inheritance and the importance of recording our legacy. Most importantly, Laura got on top of the paper and has shown us how to preserve that legacy. **Beth Chung** and **Irene Sasaki,** co-chairs of the Membership Committee, have the day-to-day responsibilities of looking at applications for new membership as well as creating new programs to orient our new members and integrate them into the Society. **Dana McDonald-Mann**, chair of the Committee on Ethnic and Minority Affairs, has worked hard this year to ensure we hear the voice of our ethnic minorities and is beginning some highly innovative projects to bring more ethnic minorities into I-O psychology.

The chairs of committees associated with the Conference are amazing. They handle hundreds of little details that most of us never considered. Despite the Conference being SIOP's biggest production, I hardly worry. I've become complacent about the Conference Workshops. Thanks to **Karen Paul**, chair of the Continuing Education and Workshop Committee, there were few concerns about producing 16 high-quality workshops. Similarly, I'm confident the program for the 2001 Conference will be one of the best thanks to **Talya Bauer**, chair of the SIOP program, and **Adrienne Colella**, the SIOP Program chair-in-Training. **Linda Sawin**, the chair of the Placement Committee, has done an excellent job of getting things ready for Conference placement activities as well as getting JobNet into successful operation. Of course, **Ron Johnson,** Conference chair, has done much of the heavy lifting related to the Conference.

Neal Schmitt, editor of the Organizational Frontiers Series, and **Eduardo Salas**, editor of the Professional Practice Series, continue to produce excellent books. In addition, Eduardo has initiated a new series, *HR Solutions*. (See below.)

Steve Brown has ably led the Scientific Affairs Committee in developing comments on APA's Test Users Qualifications and on the Department of Labor's O*Net data collection proposal. **Deidre Knapp** coordinated SIOP's comments on the APA Ethics Code revision. Like Steve, **Wanda Campbell,** chair of the Professional Practices Committee, is also involved with the Principles revision and the APA Ethics Code revision. In addition, Wanda has managed a wide variety of work ranging from coordinating member surveys to keeping an eye on APA's Task Force on Executive Coaching to providing direction for International Activities.

Our Foundation Committee is a real success story. Thanks to the able leadership of **Irv Goldstein**, chair of the Foundation Committee, and **Paul Thayer**, who represents the Foundation at Executive Committee meetings, we now have enough funds to begin our small grants program and seed important initiatives like "Educating the Public."

The chairs of our *ad hoc* committees face the daunting task of figuring out what they're supposed to do *and* doing it. **Heather Fox,** chair of the APA/APS Relations Committee, has kept us all informed about the activities of APA and APS that affect us and the opportunities those organizations provide for us. I would also like to recognize **Dianne Maranto,** who is an employee of APA, but gives freely of her own time to make sure that SIOP is aware of what's happening in APA. Because of Heather and Dianne, APA has probably never received so many comments and nominations from SIOP. **Dave Dorsey,** chair of the Electronic Communications Committee, has done outstanding work with our electronic communications developing plans for chat rooms and providing guidelines for their use. **Jack Kennedy** and **Karen Barbera**, the chair of the Professional Development Workshops, managed our first workshop featuring **Mike Beer** in Boston. Thanks to their hard work, this workshop was a success. **Gary Carter,** chair of the Visibility Committee, has the unenviable (and unpaid) task of figuring out how SIOP can be more visible to leaders in business, government, the military, and education. And, **Dick Jeanneret,** chair of the Principles Revision Committee, has led the task of revising an excellent piece of work and making it still better.

I also want to thank all the members of these committees for their hard work throughout the year. Just as the Executive Committee depends on committee chairs for information, advice, and implementation, the committee chairs depend on their committee members to help them get things done. Remember that you'll be able to identify committee members at the Conference by their "SIOP Volunteer" pins. So, please take a moment to find out what people have done and thank them.

Almost last, but certainly not least, I want to thank and recognize the members of the Administrative Office staff (Lee Hakel, Esther Benitez, Gail Nader, Larry Nader, and Lori Peake) for their efforts throughout the year. These people really are the oil in our machine. You'll find them at the registration desk during the conference. Be sure and thank them, too.

Finally, I'd like to thank someone who is not an elected officer, not a committee chair, not part of the paid Administrative Office staff. I've learned this year how much *pro bono* work **Milt Hakel** does for the Society, and I suspect that most of you simply don't know that he is behind most of the computerization of the SIOP office. Without the software Milt and Larry have developed, we wouldn't have mechanized membership information and conference submission records. Instead, we would have a lot more people pushing paper.

Now, here's an update of what's happening in SIOP.

SIOP Planning

In January 1998, the Executive Committee and a number of past presidents met for a long range planning session. Six strategic goals came out of that session:

Identity clarification—What is an I-O psychologist?
Education and professional development initiatives
Public policy initiatives
Visibility to educators and students
Visibility to business leaders
Globalization of I-O

In January 2001, the Long Range Planning Committee and all the current elected officers of SIOP met again to review our strategic goals and plans for the future. While we have made a lot of progress on most of these goals, I don't think we're ready to check off any goal as completed. We're in the process now of putting together committees to assess the status of each goal and investigate what more we should be doing. Much more information will be forthcoming as these groups formulate specific actions, but I'd like to make a few comments now and perhaps stimulate your thinking.

Identity clarification. Although the cynical among us may think that defining who we are and writing a mission statement are worthless, bureaucratic exercises, these tasks and subsequent products serve to guide the Society in many areas. Once we know who we are, we can develop membership criteria; we can write requirements for licensure; we can evaluate what activities are within the purview of a professional organization like SIOP. At the January meeting, each participant rewrote SIOP's mission statement.

Katherine Klein, member-at-large, is pulling our attempts together into a draft of a revised mission statement. We will review and revise this statement again and should be sharing a new mission statement with the membership in the summer.

Education and professional development initiatives. SIOP has done a lot in the area of education and professional development. Since that 1998 meeting, we've developed an I-O module for introductory psychology, we've instituted master tutorials at the conference, and we sponsored a Professional Development Workshop in fall 2000. For many years, we've participated in the APA Convention program. Now, we're starting to participate more in the APS program thanks to people like **Rich Klimoski** and **Mike Coovert**. We've received seed money from the SIOP Foundation for an "Educating the Public" initiative where we provide information and tools to the general public about I-O subjects via the Internet. (**Joan Brannick** has agreed to lead the first effort.) We've started working closely with APA and APS to get information about I-O psychology into their publications. Finally, we're exploring ways that we can reach out to minority undergraduates and interest them in the field of I-O psychology.

The education initiatives we have attempted have been successful. Now we have to ask ourselves if there is an opportunity to improve or expand on what we've already done. In addition, we need to think about new opportunities for educating others and ourselves. One of the most exciting ideas I've heard came from Milt Hakel, who suggested we consider sponsoring study tours in conjunction with the International Association of Applied Psychology meetings in Singapore in 2002 and the International Congress of Psychology in Beijing in 2004. (Be sure to attend the International Social Hour at the Conference if you'd like to discuss this idea more.)

Public policy initiatives. This strategic goal has been one of the more difficult ones to achieve although we're making some headway. We now have an ad hoc committee that is focused on public policy initiatives as well as visibility. The Visibility Committee is chaired by **Gary Carter** and has been successful in increasing visibility with press releases, I-O information in APA and APS publications, and a Media Resources Service, but truly influencing public policy seems to elude us. At the 1998 long-range planning meeting, we had visions of SIOP senior fellows lobbying our interests and CNN coming to us for expert commentary. This hasn't happened—yet. If you have ideas about how we can influence public policy initiatives, share your ideas with Gary and his committee.

Visibility to educators and students. I believe that every educated person should know what an I-O psychologist is and that it's SIOP's job to help students and educators alike learn about I-O psychology. Only when we have a critical mass of business executives and military and government leaders who are aware of I-O psychology can we hope to have some influence on business decisions or public policy. We're making progress here too with things like the I-O module for introductory psychology, but I suspect there's more that could be done.

Visibility to business leaders. Like our initiatives to become more visible to educators and students, our initiatives to become more visible to business leaders are off to a good start. We're beginning the "Educating the Public" initiative. We're issuing press releases about research that is of interest to the general public. A Consultant Locator Service that will help organizations find the right person to assist them in solving their problems is being finalized. I'm just not sure we're moving quickly enough.

Globalization of I-O. SIOP is already an international organization. We have 254 Members, Associate Members, and Fellows who live outside the United States. We have 178 Foreign Affiliates. Yet, many of us believe there is more we can do to integrate SIOP with other countries' I-O organizations, to encourage participation in international conferences, and to facilitate cross-cultural exchanges. Currently, the Membership Committee is looking at the criteria for membership in SIOP. To be a Member or Associate Member of SIOP, an individual must also be a member of APA, APS, or CPA (the Canadian Psychological Association). Should we extend membership to members of other psychological associations? There will be a committee that looks at international activities and opportunities relative to this strategic goal. In addition, we plan to ask those of you who attend the International Social Hour in what direction we ought to move.

New Monograph Series: HR Solutions

SIOP will be introducing a Professional Practice Monograph Series, which will be called *HR Solutions*. The monographs will be fundamental, "how to" books on HR topics like performance appraisal, surveys, selection, and so forth, that are aimed primarily at HR managers who lack our I-O training. In addition to providing managers with basic information about topics they are interested in, *HR Solutions* will provide us an opportunity to educate the public about what I-O psychology is and how the profession can help them do their jobs better. **Eduardo Salas**, the editor of the Professional Practice Series, and his editorial board are currently developing slates of nominations for editor and the editorial board of *HR Solutions*.

Surveys

SIOP's periodic surveys of the membership produce extremely useful information that informs the Executive Committee about needs and desires of the membership and guides our expenditure of resources, both time and money. Three different surveys are in the works now.

Salary survey. In February, Members and Fellows should have received the 2001 Membership/Employment Survey. I hope everyone returned his or her survey by the March deadline. In addition to being interesting, the salary survey is a very useful tool for those of us who wonder what we're worth or argue salary issues for ourselves and for the people who work for us. Many thanks to **Gina Medsker** at HumRRO for organizing this survey and to **Jim Miller** at Questar for printing and processing the survey.

New Member/CEMA Survey. The Membership Committee, co-chaired by Beth Chung and Irene Sasaki, and the Committee on Ethnic and Minority Affairs, chaired by **Dana McDonald-Mann** are jointly sponsoring a survey of new members and/or minority members. The focus of this survey is how we integrate people into the Society and encourage their participation. Look for this survey this summer.

General survey. Many standing and ad hoc committees have needs for information this year. Rather than deluge you with a large number of small surveys, the Professional Practices Committee chaired by **Wanda Campbell** will coordinate the general member survey. **Janine Waclawski** has very graciously agreed to chair the SIOP Survey Subcommittee. (You may remember that Janine and Allan Church managed the last membership survey that occurred at the end of 1999.) Janine is working with committee chairs now to develop questions. The survey will be distributed to the membership this fall.

Conference

By the time you get this issue of *TIP*, you will be packing your 208-page program for the Conference. Although some of you may have already come and gone, most of us will be anticipating visiting the 49 sponsors in the exhibit area, attending Technology Sunday, finding a new job at the Placement Center, participating in the doctoral consortium, presenting a paper, or learning something new at the vast array of panels, symposia, tutorials, and workshops. I expect this conference to be one of our best and look forward to seeing you there.

For many of us, the annual Conference is one of the best aspects of membership in SIOP. The Executive Committee is always seeking ways to improve the experience for everyone. As soon as the 2001 Conference is over, detailed planning for the new conference begins. Lee Hakel will visit the hotel for the 2002 Conference in Toronto this summer to begin making the final arrangements. The new Conference Committee will begin wrestling with Conference issues like what kind of commercialization is appropriate and what sort of enhancements should be made to the process for review and rating of submissions.

APA Ethics Code Revision

You're probably aware that the latest draft of APA's revised *Ethical Principles of Psychologists and Code of Conduct* is in the February *Monitor*. Deirdre Knapp is heading a subcommittee that will coordinate SIOP's official comments. You may also send your comments directly to the Ethics Code Task Force at APA. Comments are due by 5 PM April 30, 2001.

Member-to-Member Program

Over the years, SIOP has struggled to identify a good method for orienting new members to the Society and encouraging their participation. The Membership Committee and the Committee on Ethnic and Minority Affairs are finalizing a "Member-to-Member Program" in which a senior member will be a buddy to a new member. The Committees are working out the details of how people will be linked and information pamphlets that describe what a buddy is and is not. Look for information on this program soon.

Final Words

The Executive Committee always welcomes your comments and suggestions. By the time you read this issue of *TIP* and send me your thoughts, I may be a lame duck or even a dead duck (as far as being president is concerned)! Fortunately (for me), I'll officially be a past president with a voice at the Executive Committee. So please send those comments to me, Bill Macey, or anyone else on the Executive Committee.

From the Editor: This is the End

Allan H. Church
PepsiCo, Inc.

Hello faithful readers and welcome to the April 2001 issue of *TIP*, and what a special issue it is indeed! Aside from being another voluminous tome of scintillating reading for SIOP members of all sizes and shapes (e.g., academics, practitioners, students, consultants, early-career types, late-career types, cynical crazies, etc.), not to mention that this is *the* issue to arrive just before the SIOP Conference in San Diego (where the weather will actually be nice in April), this is also a milestone issue for another reason—it is my final issue as *TIP* Editor. Yes, faithful readers (and everyone else out there) as Jim Morrison of the Doors has been noted to say, "This is the end." No more bizarre diatribes on Rita the Meter Maid, or quasi-experimental push/pull studies conducted in the Caribbean, or useless how-to dummy book title alternatives, or comments about 1960s and 1970s space television, or oddball consulting stories. No, clearly this is the end of Church.

You know, speaking of the Doors, how many people realize that the majority of the headers that I have used in this column over the last 3 years have been song titles? Despite the numerous positive e-mails I have received since I took over *TIP*, not one person that I can remember, other than my wife, has ever commented to me about this (one way or the other). Ah well, such is life. Before I truly lament the end of my association with *TIP* (and thank all those who have helped make me infamous), however, I could not help but take one last poke at something that has been bothering me the last few months.

The e-Business Devolution

No, this one is not a song title—though I considered "You say you want a devolution." Rather, it is my way of saying that though I feel strongly that e-business and e-commerce are clearly going to stay with us as alternative means of purchasing goods over the Internet (and perhaps the sooner-to-be marketed PDA Finger-Pilot models), I never was nor am I still convinced that e-business is the be-all-end-all that many people have claimed it is (Church, 2000).

OK, there are without a doubt serious sums of money to be made in the online industry in general and connecting individual purchases (e.g., B2B, E2B, E2E, or "eBay2me") to certain types of goods and services. Moreover, many I-O and OD applications (e.g., surveys, 360-feedback, competency assessments, job postings, and applications, etc.) already have and are likely to have even more Web-based counterparts in the future. However, let's face it folks—not everyone wants to do EVERYTHING online. We are

social animals (yes, even us card carrying introverts) and that means we need to connect face-to-face sometimes with real people—not an interactive streaming video feed and pop-up real-time chat box. Moreover, given that at least 50% (and probably more—I'm being kind) of all I-O, OD and HRD theory and research, and psychology in general for that matter, has been based on real-life exchanges with PEOPLE, it seems clear to me that this element of our work cannot go away. While we might enhance our services and contribution to the world of work (and life at work) through fantastic technological applications, the fundamentals are still based on human beings. And for those who don't agree with me on this, perhaps you should consider renaming SIOP the "Society for Information Overloading Processes" instead.

Aside from the social-psychological argument, however (which, by the way, is the one of the central reasons that I feel that the related field of OD will always be meaningful as well), there are other reasons to consider not adopting the e-word with vim and vigor. Let's start with the fun parts of technology: carpel tunnel syndrome, computer viruses, credit card scamming, global protection faults, crashing operating systems, "disk full" messages, processor upgrades, eye strain, and potential sterility or brain tumors (your choice of which is worse) from exposure to intense magnetic fields. No, I would say we are not quite yet in a world ready for "Generation D" (for digital), despite what you might see in trendy television advertising. We are just a society enamored with finally being able to buy things, talk to people, and find information (much of it wrong, too, I might add), without getting out of our chairs.

I know that some firms, including a few specializing in I-O areas, are focused on this arena (and perhaps even banking on it for their survival in a competitive consulting marketplace), and I am sure that the truly competent and strong will indeed survive and thrive; however, a few simple truths about the current e-world might shed some light on the virtual reality.

Advertising from dot.coms (or "dot.bombs" as some are being called) was reportedly down 20% in the fourth quarter of 2000 (Silicon Culture… 2001) and being replaced by such *unheard of* firms (hah) as Disney and DeBeers!

Big name e-commerce mainstays like Amazon have finally slammed on the breaks and changed their expectations with respect to continued growth, even to the point of announcing massive downsizing and layoff actions (e.g., Amazon's go-go growth? Gone, 2001).

Every day in the news it seems another once-promising dot.com goes belly-up. In fact, many of those e-businesses that advertised heavily in the 2000 Superbowl advertising frenzy are now penniless and sock-puppet-less.

The online greeting card business experienced a serious hiccup this past December when companies reported more than 1,000 virus infections were introduced from holiday online greetings that originated from people that were indeed known to the recipients (so much for the advice about only opening files sent from people you know). Many firms totally blocked these programs from coming through due to the viruses themselves, not to mention the fact that the resulting animation, even among clean online greetings, overtaxing networks and crashing entire corporate systems (E-greetings spread viruses…, 2000).

Even in March of 2000, when people were more optimistic about e-business and the stock market had not had its first correction, the number one pornographic Web site boasted more unique visitors than ESPN, CDNow or Barnesandnoble (Koerner, 2000). In fact, porn accounted for 8% of the $18 billion e-business pie in 1999 (more than books or airplane tickets) and has the highest margins of almost any e-business at 30% or more.

Was that another technology stock plummeting, or did someone just step on a duck (in the co-opted immortal words of Rodney Dangerfield)?

Again, personally I really enjoy technology and the Internet—you might even say I'm a Net-head. I rely heavily on e-mail for everything I do professionally. People seek me out for help with their Windows applications. I use eBay as if I were an original stock owner...and I have a habit of searching the IMD (the Internet movie database) every time a bizarre casting question from an obscure movie arises at home. However, even I get tired of all the hoopla and hype about the e-business revolution. If it were up to me, I'd say, "Let's try to keep this whole thing in perspective and remember that as psychologists at heart, the P2P (people-to-people) dimension is kind of important too." Ok, end of the latest "Church" sermon.

The Show Must Go On

Well, it's a sad day at black rock, but this is truly the last bit that I am writing for this my final issue as *TIP* Editor (For those of you who didn't know, this section was always the last to be written after everything else came in, and therefore, technically, always late too! How's that for everyone I have given a hard time about deadlines over these years).

Serving the Society these last 7 years through my contributions to *TIP* (yes, 7—4 as a crazy columnist and 3 as editor) has been a wonderful learning experience. In that time I have written about such nutball notions as ending tenure, performance appraisals—political tools or effective measures, teamwork—fact or fiction, organizational learning, publishing in the social sciences, change management, leadership, and yes, even the future of I-O (Remember that piece about the three types of I-O psychologists—insular anachronistic noodlers, moderately useful technocrats, or fully integral professionals? If not, you have much to learn, young Jedi.). Believe it or not, some of these pieces have actually had a significantly and fruitful life beyond the initial publication of *TIP* as well. In fact, many of the various

columns and features printed in these pages are frequently used for class lectures and even reprinted in their entirety in other outlets. So for you prospective authors remember—a publication in *TIP* may not be the last time your article is read!

As a contributor and editor over the years, I have met many excellent I-O psychologists, practitioners and academics alike (including those who are not sure which camp they fall into), and made many new friends. I have achieved even greater perspective on a construct that I thought I already had well in hand from working while at graduate school—"work–life balance," and I have enjoyed the fruits of putting together 12 issues of sweat and blood, averaging 188 pages apiece, that sit nicely together when stacked against a wall. Of course, I've made some enemies too—but I've found that this comes with any (every?) editing job! And besides, you know what they say…

> *You can please some of the people all of the time and all of the people some of the time, but you can't please all of the people all of the time.* (Lydgate, 1430)

More seriously though, as someone who is a 5th generation member of one of the few remaining family-owned and operated newspapers in America today, *The Meriden Record Journal*, and in deference to my late grandfather who will always be "the publisher Mr. White" in my eyes (and the only person I have known who would challenge anyone to a lobster, red meat, or oyster eating contest and win every time), I feel it is important to say that I gave it my all these past few years and tried to shape *TIP* the way I thought it needed to be for our collective SIOP membership. I have tried my best to offer content that would appeal to all types of readers—that is, practitioners, academics, students, consultants, and even nontraditional I-O types (such as those in related fields like OD and HRD). I have also tried to maintain a balance of material that was focused alternatively on theory, humor, positioning, entertainment, research, challenging the status quo, and just plain gung-ho about the field in general. Finally, I have tried to encourage as many people to contribute to *TIP* as possible, whether through new columns, publishing e-mails in **TIP Missives**, doing special features or writing news items. While some people may not have appreciated the level of diversity, in content, inclusivity, or the ever-expanding length of each issue, the SIOP member survey results have suggested that the membership feels otherwise (Waclawski & Church, 2000). In any case, suffice it to say that as a strong Freedom of Information Act and First Amendment advocate for the State of Connecticut back in the 1960s and 1970s, all in all, I think that if my grandfather understood psychology at all and knew what in the world I-O ever meant, he'd have been proud of my efforts.

None of this would have been possible, however, without you—the SIOP membership. Your input, ideas, reactions, and suggestions have all played an important part in shaping this publication. Of course, the regular columnists helped too (you all get thanked later in the Editorial Departments section), but I think it's important to recognize that *TIP* would *truly* not have been possible without the dedication and immeasurable efforts of the SIOP Office team. Lee Hakel has been incredible at playing the roles of sounding board, confidant, layout expert, advertising guru, and countless other functions in putting these issues together (not to mention running SIOP itself). Gail Nader and Jen Hakel were both wonderful to work with on the nuts and bolts of each issue, and of course Larry Nader, who put each issue of *TIP* online for the world to see [By the way, do people realize that back issues of *TIP* all the way to July 1995 are *still* available online at the SIOP Web site—and that some of the older columns and features have significant weekly hit rates?]. I know that Esther Benitez, Lori Peake, and of course **Milt Hakel** joined in on Team SIOP as well. I was very pleased to see these folks receive recognition in the October 2000 issue (Koppes, 2000). If you have not read **Laura Koppes**' article, I strongly suggest you do so that you can thank these folks when you see them at the SIOP Conference this year! As anyone who has ever done any significant volunteer work for SIOP knows (and that's a bunch of us), this team keeps the society running like a well-oiled machine.

I leave *TIP* in good hands though. **Debbie Major** from Old Dominion University will be taking over with the very next issue and I am sure she has many great plans for *TIP*! You can reach Debbie with all your *TIP*-related content (articles, **IOTAS**, calls, column ideas and news items) at dmajor@odu.edu.

And remember, as with any changing of the guard there are always opportunities for new columns (hint, hint). Despite the fact that you need NOT e-mail me with future items for *TIP*, by all means please feel free to continue to keep me posted regarding your thoughts and comments about *TIP*, SIOP, OD, publishing, the scientist-practitioner issue, or whatever; by all means e-mail me at (allanhc@aol.com). As I have said here before, my e-mail door is always open!

Put One Foot in Front of the Other

Listed below is the usual rundown of the contents of this issue of *TIP*. As an aside, while I have always had my suspicions that the only people who read this segment are the authors and columnists being mentioned here themselves (in some cases just to see if I gave them any jabs), I found out recently that at least two SIOP Members actually use this little descriptive inventory to determine what items might be worth reading. At least I have not been writing this for my own entertainment these last 3 years... okay, maybe a little. In any case, as Monty Hall used to say, "Let's see what's behind door number #1...."

Featured articles. SIOP President **Nancy Tippins** opens the issue with her final set (at least in print) of official comments about the state of the Society. Don't forget to attend Nancy's address in San Diego, and look for incoming President **Bill Macey** to fill this space beginning with the July issue.

Next we have an interesting research article from **Michael Zickar** and **Scott Highhouse** that explores the prestige of 23 well-known journals in I-O psychology. Although the results are what might be expected, it is interesting to note that they did not rely primarily on SCSI measures as is typically done but instead used survey research methods of academic readers. Moreover, they use multiple measures (reported rejection rates, survey data, SCSI rankings, and so forth) in their results which makes the study that much more interesting. Now if we could only get them to do a comparable study of the reading habits of us practitioners!

Speaking of surveys, **Allen I. Kraut** offers up an informal and interesting response to a friend regarding the different effects of using different methods of data collection for an employee survey effort. Although more research is needed in this area as more and more organizations pursue online applications of I-O tools (as noted above), the trend so far is toward only minor differences. Now if we could only test the same methodological implications of other techniques (e.g., online versus phone versus in-person coaching; virtual team building methods, etc.) we'd be all set.

Evaluation (of impact or success) is another topic to which organizational practitioners in particular really need to attend as **Dale Rose, Jane Davidson, Jeanne Carsten,** and **Jennifer Martineau** highlight in their article. Focusing on the notion of strategic evaluation, they provide an approachable overview of this critical stage of the intervention process and some of the benefits (and pitfalls) associated with its implementation. Considering that one of the biggest criticisms of I-O and OD in general is the lack of impact of our field, it's time practitioners wrestled this one to the ground and started building evaluation into their work as a core competency.

Next, we see the results of another survey research study that explores the awareness of the field of I-O psychology in general and the potential impact of advertising through the mail. Following-up on their prior study from 1998, **Michael Gasser, Adam Butler, Kelly Anderson,** Dave Whitsett and Rowena Tan offer some interesting but unfortunately somewhat depressing results regarding how we as a field might pursue raising the general population's awareness of that amorphous creature known as "I-O psychology."

While information about who we are as a field may not always be generally accessible or easy to come by, the reverse situation is far from true as the resource laden article by **Travis Tubré, Paul Bly, Bryan Edwards, Robert Pritchard,** and Sharon Simoneaux demonstrates. Offering a plethora of article and literature search methods aimed at novice and experienced authors alike, they clearly show that it can be quite easy to be overloaded with references if one truly knows where to look.

The remaining feature in this issue tackles an entirely different aspect of I-O psychology altogether and is one that I quite honesty had never heard of until now—psychofortology. Authors Sanet Coetzee and **Frans Cilliers** provide an informative overview of the subject which focuses on the science of psychological strengths and well-being and offer some potential areas for future practice and research.

Editorial departments. Before describing this issue's columns, I want to make two quick points. First, I want to formally say *thank you* to all of my *TIP* columnists over the last 3 years. Your contributions have raised the bar in terms of quality (and for some of you, quantity too!) for the future of *TIP*. The Society and I greatly appreciate your contributions! Second, I hope that SIOP members will take the time to thank you as well when they see you in April (or whenever) for all of the hard work and dedication it takes to produce excellent material for SIOP's collective consumption on a consistent and reliable basis. 'Nuff said. Now, onto the contents of this issue.

Mike Harris takes a stab at predicting the future in this edition of **Practice Network** with help from four generations of I-O folks including **Amy Bladen, Elliot Lasson, John Scott,** and **Joel Wiesen.** Interestingly enough, the issues raised regarding the evolution and change in I-O—such as demonstrating relevancy, the I-O label, a focus on marketing over substance, issues of regulation, and the rise of global consulting firms—mirror *almost exactly* those voiced about the field of organization development in recent years (e.g., Church, 1996, 1999, in press; Gottlieb, 1998; Weidner & Kulick, 1999). In addition to his excellent list of KSAs for early career I-O psychologists, I would also include the following essentials: superb presentation skills, the ability to think systemically about organizations, and perhaps most important of all—having a *realistic* and relatively *thick* skin.

Speaking of early careers, **Kim Hoffman** and **Tom King** conclude their tireless efforts as editors of ***TIP*-Topics for Students** in this issue with an interesting foray into the benefits of teaching others (whether a future practitioner or academic). Next, they emphasize the importance of networking via making connections across professional boundaries including those "strangers" from the fields of OB, OD, HRD and even Training and Development—a point which I personally believe very strongly in as well. After a plug for the upcoming 2002 IO-OB graduate student conference to be held in South Florida, they conclude with some final suggestions for achieving that ever elusive balance in one's life—something I'll hopefully get closer to myself now that *TIP* is no longer on my calendar.

The final installment of **Janine Waclawski**'s column **The Real World**

offers simply a short and heartfelt thanks and goodbye. Although some folks will no doubt be sad to see the end of her personable and often satirical critiques on many of the inane aspects of life, as the single biggest generator of positive ***TIP* Missives** from SIOP members, at least future issues of *TIP* are bound to be shorter with her absence!

Next we have yet another compelling presentation of legal cases and their implications from **Art Gutman** in his latest installment of **On the Legal Front.** Here he covers some complexities surrounding the significance of the role of walking in the game of golf—yes, really.

The final edition of **Dirk Steiner**'s **International Forum** begins with a very handy index to all of the interesting articles and countries that he has managed to cover in his column over the last 4 years. After a brief update on I-O in France, he also introduces us to (or reminds some of us of) the International Association of Applied Psychology (IAAP). Having been a member myself for several years now, I also heartily recommend the organization for a truly international perspective on I-O and OB.

It seems that the use of surveys in organizations these days is as ubiquitous as beer and chips for sport-watching coach potatoes. To help us improve our efforts in this area, however, along comes **Steven Rogelberg**'s latest **Informed Decisions** column. With the help of his colleagues Janine Waclawski, **Jeffrey Stanton**, and myself, we tackle two particularly nagging contemporary practices in survey research and reporting—that is, the overreliance on external norming and "percent favorables."

Just in case you thought that *TIP* was the last possible place that you might find useful information on theory building in I-O psychology, along comes the latest edition of **Paul Muchinsky**'s **High Society**. In this issue the closest thing SIOP has to Dave Barry presents a poetic and prophetic recipe that even readers of *AMR* will find enticing, brought to us from the "psychic vibes" of one very well-known and respected individual from the *real* world. As a practitioner, I always wondered what I should do with those pesky moderator variables; now I know.

Next, **Lori Foster Thompson** and **Dawn Riddle** provide an annual review of the first volume of their **Early Careers** column. After playing the highlights reel from their star I-O interviews, they summarize best of their career gear tips which include being organizationally smart, double-dipping professionally, walking the line between HR and I-O, and that pesky notion of work-life balance again. Do any of these sound the slightest bit familiar to anyone? The column concludes with some insightful and interesting scenarios for consideration where the themes of over-commitment, realism, time management, and learning the ropes are evident.

Global Vision by **Mark Griffin** and **Boris Kabanoff** returns this issue with an interesting review of work being done internationally on the psychology of safety. Interestingly enough, much of this research dovetails nicely with the area highlighted in the feature in this issue from Coetzee and Cilliers on Psychofortology (see above). Although only based on an N of 2, I wonder if there is an Australian connection here?

Another long-standing *TIP* column, **Traveling in Cyberspace,** returns and makes its last hurrah this issue with an informative (and somewhat unnerving) look at computer security from **Philip Craiger** and Blaine Burnham.

Finally, this issue contains the eagerly anticipated solution to the second edition of the *TIP* Crossword by **Steven Katzman**. Don't forget to send him your ideas for future puzzles!

News and reports. Since *TIP* is first and foremost the official newsletter of the Society and APA Division 14 (You knew that, right?), it should be no surprise that this issue, like all those before it, contains useful and informative items in the News and Reports section. The highlights of this edition include the latest SIOP Secretary's report from **Janet Barnes-Farrell**, an update from **Linda Sawin** on the new SIOP job placement services including information on the newly launched JobNet, information from SIOP Historian **Laura Koppes** on why and how to send archival materials for preservation, a report from **Bev Dugan** on the International Affairs Subcommittee, two reports from **Dianne Maranto** from the APA Science Directorate, and the call and criteria for SIOP awards for 2002. Of course, there are a few Missives, IOTAS, Calls and Announcements, Conference listings (don't forget to look here to see **David Pollack**'s photo) and the latest job postings as well. I hope you enjoy the issue.

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Well, this is it! If you would like to e-mail me any final comments or reactions to this specific issue, the last 3 years of *TIP*, or the last 7 years of my cantankerous contributions, by all means e-mail me at allanhc@aol.com. For all those with new ideas and suggestions, however, be sure to send them instead to our new incoming editor Debbie Major at dmajor@odu.edu.

So long!

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Measuring Prestige of Journals in Industrial-Organizational Psychology

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Bowling Green State University

The quality or prestige of journals is often used as a surrogate for evaluating the quality of individual publications. It has been our experience that faculty search committees and tenure evaluation committees often make judgments about the research productivity of candidates without reading the individual articles listed in the research vita. Instead, the quality of articles is judged by the prestige of the journal in which the article has been published. This reliance on journal prestige has been noted in management (e.g., Extejt & Smith, 1990; Johnson & Podsakoff, 1994; Kirkpatrick & Locke, 1992) as well as other fields such as sociology (Teevan, 1980). This over-reliance on journal prestige as a measure of journal article quality mandates that alternative measures of journal prestige be explored.

There have been several different indicators of journal quality proposed. One of the most popular indicators of journal prestige has been the Social Science Citation Index (SSCI) *impact factor*. The logic behind the impact measure is that journals with high prestige will contain articles that are cited more frequently by subsequent articles. One criticism of impact factors is that articles on topics with mass appeal (e.g., training and development) will tend to be cited more frequently than articles in areas of more limited appeal (e.g., psychometrics). Similarly, journals with larger audiences, such as those catering to both business school and psychology faculty, will necessarily have higher impact factors than journals with smaller audiences such as those catering only to psychologists. Other measures such as rejection rates, library circulation, or years in press are also confounded by factors such as audience size and topic popularity.

Another method of assessing journal prestige is to ask members of the field to judge the quality of particular journals. Although surveys of faculty impressions of management journals exist (e.g., Extejt & Smith, 1990; Gomez-Mejia & Balkin, 1992), it is unclear whether rankings of business journals can serve as rankings of I-O journals. One issue that has received attention over the years is the identity of I-O psychology relative to related disciplines, such as human resource management, organizational behavior, or organization development (e.g., Highhouse & Zickar, 1997; Naylor, 1966). Indeed, a considerable number of leading academics in I-O reside in business schools, raising the questions of whether I-O psychologists in psychology departments view journals differently than I-O psychologists in

[1] Author Note: We are grateful to Margaret Brooks-Laber and Steve Russell for their assistance on this project.

business schools.

To begin to address these questions, as well as to provide a specific measure of journal prestige in I-O psychology, we surveyed a sample of academic members of SIOP concerning their impressions of journal quality in I-O. One advantage of this method is that it focuses on the judgments of constituents of one area thereby avoiding the problem of area size dictating journal impact. We were also able to identify the academic "home" of these members, in order to examine differences in impressions of journal prestige for psychologists in business schools versus departments of psychology.

Methods

We selected 23 journals that, in our judgment, are common outlets for research by I-O psychologists. Journals were selected from previous lists of management journals (e.g., Extejt & Smith, 1990), excluding journals that are exclusively associated with business research (e.g., *Sloan Management Review*, *Journal of Labor Economics*) or with psychological research (e.g., *Journal of Personality and Social Psychology*, *Psychological Bulletin*). Although we recognized that some of these excluded journals can and do serve as occasional outlets for research by I-O psychologists, we were ultimately concerned with having judges compare I-O journals directly against one another. We also added journals that have not been included in previous lists, either because they are newer (e.g., *Human Performance*; *Human Resource Management Review*; *International Journal of Selection and Assessment*; *Organizational Research Methods*) or because they have been previously overlooked (e.g., *Applied Psychology: An International Review*; *Journal of Business and Psychology*; *Journal of Organizational Behavior*). We also included space for judges to add journals that they felt should be included on the list.

We sampled from the membership roster of SIOP. We received mailing labels from the SIOP database of all members who reported an academic setting as their primary place of employment. This list included 1,003 members in alphabetical order. We used a spaced sampling technique to arbitrarily sample SIOP members to reach our target sample of 500 members. We excluded people who were sent surveys in an earlier small-scale pilot study. Our sample represented approximately 50% of the academic members of SIOP as of 1999.

A questionnaire was sent to each member of the sample, and responses were made anonymously. Part I of the questionnaire instructed judges to place the 23 journals into one of three tiers and to indicate (a) whether they have published in the journal, and (b) whether they read the journal on a regular basis. The tiers were defined as follows:

First Tier: This ranking should be reserved for journals that present uniformly high quality research and/or review articles. Articles in top tier jour-

nals should be both methodologically sound *and* important in advancing our knowledge base.

Second Tier: Journals in this tier should routinely have high quality articles. However, the quality of content is uneven.

Third Tier: Journals in this tier routinely publish articles with suspect methodology.

The judges were instructed to circle the option labeled "?" if they were unfamiliar with the journal.

Part II of the questionnaire instructed judges to choose and rank the top 10 journals (from the list) that in their opinion "publish the most important research for I-O psychologists." The purpose of this section was to force judges to make relative distinctions among the higher quality journals. We also recognized that although a journal could be considered "first-tier," it may not be seen as publishing research of direct relevance to I-O.

The final part of the questionnaire asked judges to indicate their primary place of employment (i.e., business school, labor/industrial relations department, psychology department, other) and years since they received their PhD. Judges were also asked to indicate areas in which they have conducted research, using the competency areas identified in the SIOP guidelines for education and training.

Results

Two-hundred seventeen usable responses were returned. Nine questionnaires were returned uncompleted or because of a change of address. This represented an effective response rate of 44.2%. The sample was evenly split between those employed in psychology departments (46.9%) and those employed in business schools (43.1%); a smaller number of respondents were employed in labor/industrial relations (LIR) departments (3.8%) and other departments (6.2%). For analyses based on department we combined business school and LIR faculty. The average respondent had completed their PhD 13.9 years prior to completing the questionnaire.

Table 1 reports the average tier ratings for each of the 23 journals. These ratings range from 1 to 3 with lower ratings corresponding to higher prestige. These ratings are presented for the overall sample as well as separated by business school and psychology department respondents. The rank ordering of journals on this index is also presented in the table.

Table 1. *Tier Ratings of I-O Journals*

Journal	*Overall Tier*		*Psych Tier*		*Business Tier*	
AMJ	1.15	(2)	1.17	(2)	1.0	(2)
AMR	1.21	(3)	1.28	(5)	1.10	(4)
ASQ	1.27	(5)	1.48[2]	(6)	1.08[1]	(3)

APM	1.82	(9)	1.69	(7)	2.00	(13)
AP:IR	2.33	(19)	2.37	(18)	2.24	(19)
BASP	2.24	(18)	2.22	(17)	2.29	(21)
EPM	1.91	(12)	1.88	(11)	.92	(11)
GOM	2.33	(20)	.40	(19)	2.26	(20)
HP	2.08	(15)	2.01	(14)	2.19	(17)
HR	2.21	(17)	2.44[2]	(21)	2.03[2]	(14)
HRMR	2.33	(21)	2.53	(23)	2.23	(18)
IJSA	2.48	(22)	2.43	(20)	2.59	(23)
JAP	1.07	(1)	1.07	(1)	1.05	(1)
JASP	1.87	(10)	1.83	(9)	1.89	(9)[1]
JBP	2.52	(23)	2.49	(22)	2.57	(22)
JM	1.76	(8)	1.85	(10)	1.65	(7)
JOOP	2.07	(14)	2.04	(15)	2.0	(15)
JOB	1.90	(11)	1.91	(12)	1.89	(9)[1]
JVB	1.94	(13)	1.94	(13)	1.93	(12)
LQ	2.18	(16)	2.21	(16)	2.16	(16)
OBHDP	1.28	(6)	1.23	(4)	1.29	(6)
ORM	1.75	(7)	1.82	(8)	1.69	(8)
PP	1.22	(4)	1.20	(3)	1.20	(5)

Note. [1] Indicates a tie; [2] indicates that a significant difference exists between business school and psychology department faculty on this index.

Table 2 presents the number of points that the 23 journals received in the top 10 rankings. Journals were given 10 points if they were ranked in the first position, 9 if they were in the second, and so forth. As before, rankings and breakdowns by psychology departments and business schools are presented in this table.

Table 2. *Rankings of I-O Journals*

Journal	*Overall Top 10 Points*		*Psychology Department*		*Business Department*	
AMJ	1,337	(3)	551	(3)	693	(2)
AMR	911	(5)	440	(5)	436	(4)
ASQ	546	(6)	189	(7)	321	(6)
APM	70	(18)	42	(16)	28	(18)
AP:IR	46	(22)	24	(20)	21	(20)
BASP	59	(21)	36	(19)	14	(21)
EPM	188	(11)	106	(12)	62	(13)
GOM	69	(19)	14	(22)	51	(16)
HP	238	(10)	146	(9)	59	(13)[1]
HR	106	(15)	39	(18)	52	(15)
HRMR	63	(20)	4	(23)	59	(13)[1]
IJSA	38	(23)	23	(21)	11	(23)
JAP	1,884	(1)	898	(1)	860	(1)
JASP	178	(13)	109	(11)	48	(17)
JBP	93	(16)	69	(14)	13	(22)
JM	438	(7)	180	(8)	234	(7)
JOOP	187	(12)	193	(6)	212	(8)
JOB	425	(8)	100	(13)	65	(11)
JVB	284	(9)	126	(10)	123	(9)
LQ	72	(17)	41	(17)	26	(19)
OBHDP	980	(4)	516	(4)	409	(5)
ORM	161	(14)	66	(15)	86	(10)
PP	1,484	(2)	718	(2)	668	(3)

Note. [1] Indicates a tie; this index was formed by weighting inversely each mention of the journal in the respondents' top ten most influential journals list (e.g., if a journal was ranked first it received 10 points and if it was ranked in the 10th spot, it received 1 point).

These rankings were highly correlated ($r = -.87$), so we decided to combine these two indexes of journal quality (after standardizing and reverse-coding prestige) to come up with an overall index. Table 3 presents the overall top 10 index based on this combination.

Table 3. *Top Ten Overall Journals*

1. *Journal of Applied Psychology*
2. *Personnel Psychology*
3. *Academy of Management Journal*
4. *Academy of Management Review*
5. *Organizational Behavior and Human Decision Processes*
6. *Administrative Science Quarterly*
7. *Journal of Management*
8. *Journal of Organizational Behavior*
9. *Organizational Research Methods*
10. *Journal of Vocational Behavior*

As a final index of interest, Table 4 presents the percentages of respondents who reported that they read the 23 journals in the study. The majority of I-O psychologists read *AMJ*, *AMR*, *JAP*, and *PP*, whereas most journals included in this study were read by less than 20% of the sample.

Table 4. *Reading Frequencies of I-O Journals*

	Overall Percent Who Read	*Psychology Department*	*Business Department*
AMJ	79.2	77.8	83.9
AMR	72.3	66.7	80.9
ASQ	37.3	26.3[1]	49.5[1]
APM	12.9	19.2	8.1
AP:IR	13.3	19.2	9.1
BASP	10.6	14.1	7.0

EPM	20.8	24.3	17.2
GOM	16.6	12.1	23.3
HP	17.1	24.2	11.1
HR	21.2	18.2	26.2
HRMR	14.3	6.1[1]	22.2[1]
IJSA	7.8	10.1	4.0
JAP	82.5	85.9	79.8
JASP	24.0	28.3	21.2
JBP	14.8	19.2	11.2
JM	40.5	27.3[1]	55.6[1]
JOOP	13.3	13.1	12.1
JOB	31.8	26.3	37.4
JVB	20.7	21.3	20.2
LQ	15.7	14.2	16.2
OBHDP	44.3	45.4	43.4
ORM	15.7	13.1	19.2
PP	64.9	68.7	64.6

Finally, Table 5 presents the correlation matrix between the indexes in this study as well as Starbuck's impact rating corrected for area norms (Starbuck, 2000) and self-reported rejection rates. Rejection rates were collected from a published compendium (American Psychological Association, 1997) and writing to editors for journals not listed in that publication. As can be seen from the correlation matrix, all of the indexes are highly correlated with each other. However, our three self-reported measures were more highly correlated with each other than the correlations between those measures and Starbuck's impact factor and rejection rates.

Table 5. *Correlation Matrix of Indexes*

	Tier	*Ranking*	*Read*	*Starbuck's Impact*
Tier				
Ranking	−.87			
% Who Read	−.88	.95		
Starbuck's Impact	−.49	.51	.62	
Rejection Rate	−.72	.44	.56	.72

Note. All correlations are significant at $p < .05$.

Discussion

The indexes presented here can be considered additional evidence that can be used to judge the quality and prestige of various I-O psychology journals. These indexes, like others, have their own limitations. Our sample excluded nonacademics; the ranking of journals would surely differ if

nonacademics were sampled. In addition, responses to our measure were likely influenced by raters' exposure to other indexes, such as impact factors or rejection rates. Finally, our ratings might also have differed if we would have included more general psychology journals among the list of 23 journals that we selected. A small number of respondents chose to list and rate *Psychological Bulletin* and *Journal of Personality and Social Psychology*—two journals that publish basic research that is often directly related to I-O psychology. We suspect if those journals were included in our list, they would have received high prestige ratings.

Our data further confirm that there is a core group of journals (*AMJ*, *JAP*, *PP*, *AMR*, and *OBHDP*) that are rated as uniformly high on all possible indexes. *ASQ* would fit into this group if considering only ratings by business school and LIR faculty. It is clear that *JAP* is the flagship journal for I-O psychologists. Across all indexes, *JAP* scored highest. We did analyses based on the type of research interests expressed by respondents, and across all areas of research *JAP* scored highest. We suspect that most readers of *TIP* already knew that *JAP* and those other journals were prestigious, and so the more useful aspects of our data may relate to the other 17 journals included in our analyses.

That our self-report prestige measures correlated with other nonself-report measures adds some validity to these ratings. Starbuck's (2000) impact factor ratings are based on citation rates for the articles published in each of the journals and, as such, are an objective measure of journal quality. The rejection rates are relatively objective, though there is the possibility that some editors inflate those estimates. Regardless, the correlations among the different measures suggest that our prestige ratings have some validity.

Differences between ratings by business school/LIR faculty and psychology department faculty were relatively few. *ASQ* and *HR* had lower (better) tier ratings for business faculty than psychology faculty; *ASQ*, *HRMR*, and *JM* were read more frequently by business department faculty compared to psychology faculty. More journals would have had significant results, but we used an experiment-wise error correction so it appears that these journals were the ones that had the largest differences. There was an interesting asymmetry in that more psychologically focused journals (e.g., *JAP*, *OBHDP*) were ranked and read at similar rates across business and psychology faculty. However, some of the more management-focused journals are read more infrequently by psychology faculty.

In an ideal world, hiring, tenure, and award committees would evaluate the quality of publications by actually reading the articles. However, it is our experience that most committees do not read the articles but focus simply on the quantity of publications and the prestige of the journals in which those articles are published. We hope the results from our questionnaire will, at the least, help to better inform judgments about the journals in I-O.

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Appendix
List of journals included in study

AMJ	*Academy of Management Journal*
AMR	*Academy of Management Review*
ASQ	*Administrative Science Quarterly*
APM	*Applied Psychological Measurement*
AP:IR	*Applied Psychology: An International Review*
BASP	*Basic and Applied Social Psychology*
EPM	*Educational and Psychological Measurement*
GOM	*Group and Organization Management*
HP	*Human Performance*
HR	*Human Relations*
HRMR	*Human Resource and Management Review*
IJSA	*International Journal of Selection and Assessment*
JAP	*Journal of Applied Psychology*
JASP	*Journal of Applied Social Psychology*
JBP	*Journal of Business and Psychology*
JM	*Journal of Management*
JOOP	*Journal of Occupational and Organizational Psychology*
JOB	*Journal of Organizational Behavior*
JVB	*Journal of Vocational Behavior*
LQ	*Leadership Quarterly*
OBHDP	*Organizational Behavior and Human Decision Processes*
ORM	*Organizational Research Methods*
PP	*Personnel Psychology*

An E-Mail Letter to a Friend[1]

Allen I. Kraut
Baruch College, CUNY and Kraut Associates

Dear Terry,

Your voice-mail message said you are thinking of using a Web-based technology for your firm's next survey of employees. Well, you would be part of a fast-growing trend. I recently did a benchmarking study of 20 large companies that regularly use surveys and got some surprising results. About 77% still use paper and pencil for their surveys, but 83% do them electronically, and the majority does both.

Your message also asked what the published research shows about differences between Web-based and more traditional paper-and-pencil-based employee surveys. I thought this note might be a good way to leave you with a record of what I know. Although there is not a lot of research on the topic, the findings so far seem to be reasonably clear-cut. I'll comment on what seem to be the most important findings, in terms of practical applications.

General apprehensions. First, I recognize that you seemed a bit uncomfortable in considering this change. Most survey practitioners, both internal and external, admit to grappling with a "don't mess with success" form of resistance. But when proper groundwork is done, these concerns turn out to be unwarranted. A clear account of this is given by **Scott Spera**'s (2000) experience with NCR involving 30,000 employees worldwide in 24 languages. Like many others, he found the survey to be quicker, cheaper, and preferred for the next survey by 99% of those who used it. Similar results are indicated by **Michelle Donovan**'s (2000) account of a survey done in a university. (Their reports, like the other studies noted below, were presented at SIOP's Annual Conferences over the last 3 years.)

Measurement equivalence. Do you know this term? This is the issue of whether the two types of survey seem to measure the same concepts, using the two modes (paper versus Web). That is, do the two modes seem to generate or capture different underlying concepts even when the questions seem to be identical?

The answer is pretty clearly "no difference," even if the analytic techniques used to establish this are highly specialized. Hezlett's research (2000) shows this is true across four different countries. Fenalson's study also says this is true, using data from a 360 survey. A study by Magnan, Lundby and Fenlason (2000) also shows measurement equivalence.

Differences in mean ratings. This issue is critical to most practitioners.

[1] Reprinted by permission. Kraut, A. I. (2001). *MetroNews*, The Metropolitan New York Association For Applied Psychology, New York, New York.

It asks whether we get more or less positive answers just by using a different mode to gather responses. If that were true, we could not compare responses from the two methods, or even track trends properly if another mode was used at a later time.

Yost and Homer (1998) did the best study I have seen on this issue, using a large sample at Boeing Aircraft. Their conclusion is that mode makes no difference if you correct for job level. But they do note an artifactual difference you get when you compare answers only by mode.

As is well known, lower-level employees are less likely to have access to the Web and also more likely to have lower satisfaction scores. Thus, people who are less likely to have access to the Web are also going to have lower scores, but the lower satisfaction is not produced by the mode used to collect their viewpoints!

The study by Magnan, Lundby, and Fenlason (2000, showing measurement equivalence) also seems to show lower item mean scores for those not responding by Web. But if one "backs out" (or adjusts) the lower-level employees' data to take job level into account, this clearly eliminates any mean differences in favorability on account of mode. (I did this in my role as discussant in the symposium where their paper was presented.) Among those respondents who had a choice of survey mode, there is virtually no difference between Web and paper respondents.

Missing data. Yost and Homer (1998), as well as Fenlason (2000), report that the number of missing responses or incomplete answers to fixed-response items is a trifle higher for the Web but inconsequential from any practical point of view. Church and Waclawski (2000) had a similar finding about missing responses in a study of over 1,600 government employees given a choice of responding by paper or Web. (They also found little difference in the mean response and a preference for responding online.)

Write-in comments. This is one area where the evidence clearly points to considerably fuller replies to open-ended questions. Fenlason (2000) found the Web yields replies that are 50% longer. Yost and Homer's (1998) study found increases of 150%.

One must note that in addition to longer, presumably fuller and more useful replies, the technology gives you comments already keyed in (by the respondent) and thus all ready for processing, compilation, and analysis. And when "text-mining" programs are more readily available to help us manipulate this data, watch out!

Participation rates. My own experience finds that the participation rates are pretty much the same. Yost and Homer (1998) report that as well. On the other hand, Spera (2000) found the NCR response rates went up from the low 70s% to a record participation of 77%. Other practitioners have told me that the Web has a slightly positive effect.

I suspect that participation rates are more likely to go up but not just

because the method is perceived as easier and quicker. The introduction of a new mode is a wonderful communications opportunity. It is a great time to add some ballyhoo and excitement and to remind people of the positive reasons to take part. When this is done properly, it can surely reinvigorate a lackluster program. Of course, ultimately this has to be backed up by a high-level management commitment and responsive action.

Summary. Well, I hope that answers your concerns based on what we know so far. Overall, Web-based surveys seem to produce the same results as paper-based surveys in terms of average favorability of the responses and in their underlying measurement characteristics. The Web also seems to result in fuller write-in replies and slightly higher participation rates.

It is common among practitioners to worry about what could go wrong with the introduction of a new data collection technology. Indeed, this is usually healthy and appropriate, especially if these concerns are consciously dealt with in the implementation process. But the evaluation of those who have gone through the experience of using Web-based technology seems to be quite positive.

So, good luck to you! And let me know how it works out.

Best Regards,

Allen

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Strategic Evaluation: A New Perspective on the Value of I-O Programs

Dale S. Rose, Jane Davidson, Jeanne Carsten, and Jennifer Martineau

Last spring in New Orleans a group of 100-plus SIOP members began a network interested in evaluating the impact of our work on business outcomes (aka "program evaluation"). Over the summer, a group of us (from three different time zones) had a long conversation about the issues we face in trying to do what we had termed "Strategic Evaluation." Several of us commented that it seemed very few I-O psychologists were familiar with the specialist discipline of program evaluation and the enormous potential it has for improving organizational effectiveness. Further, it seemed that few I-O psychologists were conducting program evaluations of I-O interventions. We had all shared the experience of talking to I-O psychologists who had never heard of program evaluation and who had never considered techniques for evaluating our programs. Clearly, this was a topic for *TIP*.

"So, what is Strategic Evaluation?" Without writing a textbook here, basically we're talking about assessing program impact on a set of predefined criteria. We do this using behavioral science and other methodologies to answer the question, "to what extent did this program (e.g., 360-degree feedback for customer service representatives) achieve outcomes of value to the organization and its stakeholders?" This process becomes strategic to the extent that these measured program outcomes (e.g., "improved customer service") are aligned with valuable organizational goals (e.g., "provide the best customer service in our industry").

"Ok, but is that really I-O psychology?" Historically, I-O psychologists have focused on methods for *developing* high-quality programs but placed less emphasis on *evaluating* them once they are in place. Common I-O methods such as needs assessment, organizational diagnosis, and test validation are tools used to assure the effectiveness of our interventions on an a priori basis. In essence, these methods are the "front-end" of any intervention: they are intended to make sure we start on the right foot. If validation and other core I-O techniques are the "front-end" of an intervention, Strategic Evaluation can be seen as the "back-end" of a project in that it is conducted during and following implementation. From the perspective of Strategic Evaluation, both "front" and "back" ends are needed to assure a high-quality intervention that meets organizational needs.

Whereas Strategic Evaluation would likely not be included in most I-O psychologists' current definitions of our field, it can be seen as an important complement to the work we do. Most I-O definitions would likely focus on developing solid research-based tools for improving workplace performance. Far from replacing this orientation, Strategic Evaluation adds a systematic, results-driven follow-up to the rigorous program development techniques that are currently the core of our field.

Ideally there should be a close link between developing I-O interventions and evaluating them—a self-correcting feedback loop for those inclined toward schematic models of the process. By understanding (at the front end) the outcomes being assessed in a Strategic Evaluation, the intervention can be designed to appropriately address those outcomes. Likewise, it is important for evaluators to understand how interventions were developed. Thus, given the complexity of our field, it is essential that I-O psychologists are involved in evaluating our interventions because others may not adequately understand the methods we employ.

"This still sounds awfully abstract, what exactly does Strategic Evaluation <u>look</u> <u>like</u>?" Really, it could be any systematic analysis of implementation and goal-related impact that resulted from implementing an I-O program. But, perhaps a more hands on example would be useful. Here's a snapshot of a strategic evaluation that might make it a bit more tangible.

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A study is currently underway to evaluate the impact of a customer service skills training program. This program is one piece of a larger effort to move the organization toward a more customer-focused business model (e.g., technology and business process changes). The primary goal is to build customer satisfaction, thus customer satisfaction is a key outcome measure in the evaluation. The objectives of the evaluation are to assess the extent to which the training program builds knowledge of the new business model and specific service delivery skills and to assess changes in organization metrics (customer satisfaction) targeted by the new business model. Evaluation measures include: (a) a participant reaction survey and knowledge assessment administered at the end of the program; (b) posttraining self and supervisor ratings of on-the-job skill performance (pretraining supervisor ratings of skill were collected for a sample of participants); and (c) third-party ratings of performance (including both trained and untrained staff), collected before, during, and after the training roll-out customer satisfaction ratings collected quarterly or annually, depending on the business unit.

Additional variables are also being tracked (e.g., work environment, leadership practices), to provide executives with more information about the implementation of the new business model.

The results to date indicate that the program has achieved the stated objectives, based on participant performance on the posttraining knowledge assessment (a pretraining needs assessment had been conducted to establish baseline knowledge). Posttraining self and supervisor ratings of skill performance indicate participants are applying the new service delivery skills successfully on the job. In addition, the posttraining skill ratings are significantly higher than pretraining ratings provided by the supervisors for the pre–post sample.

The third-party performance ratings and customer satisfaction ratings are still being collected, and will provide information regarding the link to the

business strategy. While the training program is certainly not the only intervention for improving customer satisfaction, the third party performance ratings and some customer satisfaction ratings are being gathered throughout the process. The trends of these ratings over time can better indicate a link between the program and customer satisfaction, particularly since the training program is being implemented in different groups at different times.

"So what are the challenges or barriers to Strategic Evaluation?" As with many consultative relationships in our field there are both internal and external evaluation consultants, each facing their own challenges. Though many of these challenges are common to any consultant group, we felt it might be useful to point out some of the *unique* challenges internal and external evaluators face when implementing Strategic Evaluation.

With a wide range of backgrounds and positions, each of the authors has a unique perspective. **Dale S. Rose** is president of 3-D Group, a consulting firm that provides external program evaluation services to a wide range of corporate and nonprofit companies. **Jeanne Carsten** is vice president of National Consumer Services HR Development at Chase Manhattan Bank and is responsible for building assessment and evaluation structures and processes that enhance employee and organization effectiveness. **E. Jane Davidson** is a full-time faculty member at Alliant University and has conducted both internal and external evaluations in a wide range of organizations in both the public and the private sector. **Jennifer Martineau** is a research scientist at the Center for Creative Leadership where she uses evaluation processes to enhance the implementation of the Center's client-specific initiatives, as well as fine tune new CCL programs.

Though all the authors had a considerable amount to say on each of these perspectives, we agreed to divide the topics equally. So, after drawing straws (well, it wasn't really that random…) we each commented on a range of issues related to Strategic Evaluation.

Fear

Dale. Often, the topic of evaluation is highly emotional and politically charged as most of us associate the phrase "evaluate" with having a value placed on our work. We think we're being graded, and deciding who will do the grading is important. Despite the fact that evaluators do not typically approach evaluation in this way, the fear of evaluation is a big issue every evaluator must overcome. The best method we've found for addressing this challenge is to make the evaluation process one of collaborative exploration toward program improvement. This way we're partners with program developers, not "program police." Generally, we find that program sponsors and program developers share an interest in making the program work, so we find that evaluation data can be used by all parties to problem solve and find improvements.

Jane. There is something very attractive to both parties about a collaborative approach to evaluation in which the power to draw conclusions and responsibility for the findings rests *jointly* with the evaluation consultant and organizational members, rather than with the consultant alone. It is less threatening to both sides, and neither party needs to take *sole* responsibility for the evaluation findings. However, there is also great benefit in complementing such an approach with a less interactive, more independent evaluation.

The "external eye" gives the organization a number of benefits above and beyond what the collaborative evaluator can add, including: (a) a completely fresh "outside the box" perspective on its performance, (b) a safer communication channel for the disclosure of sensitive information, and (c) an independent viewpoint (especially useful when the appearance of bias or conflict of interest might be fatal). While the teacher/facilitator role has enormous payoffs for building organizational self-evaluation capacity, as evaluators and I-O practitioners it is our professional responsibility to *also* be instilling in our clients the value of periodically using an external eye to inject some *diversity of perspective* into organizational thinking.

Cost

Jeanne. Executives are expected to account for expenses. Evaluating I-O programs enables the practitioner to speak in terms of expense and also in terms of realized benefits and value to the business. While conducting a strategic evaluation adds expense to the program, the added value of articulating both direct and indirect program costs, and direct and indirect program benefits is significant. This is more than an analysis of return on investment, which may ignore important indirect costs or benefits, and may not fully represent the value of a program that is clearly contributing to important strategic goals. In addition, limited organizational resources may be more effectively allocated by using process information for continuous program improvement and identifying the most impactful programs and activities.

Jennifer. There are direct versus indirect costs to evaluation, depending largely on whether an internal or external evaluator is used. With internal evaluators, most of the costs are indirect—staff time, and so forth. But there must be a champion for the work in order to have staff resources dedicated to the work. When the perception is that "it's free," it is easy to forget that an evaluation will require significant time, regardless of whether it is conducted by an internal or an external evaluator. The internal evaluator is best served by providing the costs of their services, as benchmarked against the fees that would be paid to an external evaluator, as a way of illustrating the "worth" of their time.

Feasibility

Dale. The continuum from the "ideal" study to the "easy" study is not easy to navigate. The important thing is not to throw the baby out with the bath water. We're taught that the ideal (controlled, random assignment, and so forth) is the standard, but I turn this around. Rather than seeing the base line as a highly controlled study, I see it as finding some way to improve on

the other option: no evaluation at all. In evaluation, feasibility needs to be considered *before* thinking about what journal editors might think, not the other way around. The thing to keep in mind is that even a simple but systematic analysis of a program is better than the alternative evaluation: rumor, hearsay, anecdotes, and single case testaments.

Jennifer. I agree with Dale. Often, journal editors are not interested in evaluation studies because they are not tightly controlled. However, this is the real life of evaluation—we work with real people in real situations. Control groups are frequently not available, nor is it feasible to constrain the intervention being evaluated to the point that you can cleanly identify factors within and outside the realm of the intervention. The goal of Strategic Evaluation, however, is to design the most appropriate evaluation for the situation that best serves client needs.

Business Benefits

Jeanne. The evaluation process provides the I-O practitioner a framework for aligning programs with business strategy. Clear and direct alignment with business strategy enables the I-O practitioner to verify that the program is moving the business in the appropriate direction. The information gathered during the evaluation process is used to optimize program quality and make program investment decisions. The information also becomes a management tool for executives in navigating a rapidly evolving business environment. The systems framework offered by strategic evaluation can provide executives with a comprehensive view of the business and the factors that impact important strategic objectives. Progress toward outcomes can be tracked over time, along with critical enablers and inhibitors.

Dale. I once heard an executive say of his 360-degree feedback program, "We don't really have a lot of external pressure to justify our program. We're all PhDs and so the organization mostly believes we do good work." I was struck that this perception of evaluation missed the point. Let's consider a simplified example. A well-conceived 360-feedback program may be functioning at a 65% effectiveness level (however measured…) which produces some organizational benefits (likely outweighing costs). Because smart and experienced people developed it, this same program may even satisfy its economic buyers, resulting in a lack of internal pressures to modify the program. As I pointed out to this executive, however, a lack of internal pressures for modifications doesn't mean there isn't room for improvement! By using the right data to guide implementation adjustments, the organization may be able to improve the program's performance to perhaps 85%—thus realizing a meaningful gain in terms of employee development. Likewise, it may be that the program produces some benefits, but perhaps not those benefits the organization expected. To some extent I think we need to ask ourselves if we are in the business of reacting to internal pressures or the business of enhancing workplace behavior.

Initiating Strategic Evaluation "Up Front"

Jennifer. Have you ever designed and implemented a high-quality I-O intervention, only to find the client isn't satisfied with it? By targeting Strategic Evaluation up-front and hand-in-hand with the designer of the initiative and the client—getting the client to the point where they can tell you exactly what they want the intervention to accomplish—the intervention can be designed and developed to meet those expectations. Focusing on Strategic Evaluation at the front-end helps cover our rear-ends at the back-end!

Dale. The biggest mistake we see clients make with regard to evaluation is to treat it as an afterthought. My favorite example happened a few years ago when I got a call in late May with a request to evaluate a training and development program that had been ongoing for the previous 7 months. The program was scheduled to be completed mid-June and the program sponsors wanted to see some results. We managed to provide an evaluation that was useful, but let's just say the evaluation of the next cycle (beginning the following September) was a LOT more useful.

Isn't This Just Validation Research?

Jane. Suppose we consider a case that looks like validation research and use it to illustrate how Strategic Evaluation builds on the initial test development and takes us above and beyond the initial development and validation. Surely the only thing one needs to know about a selection system is whether it improves the organization's "strike rate," minimizing both false positives and false negatives—right? Wrong! Even with the inclusion of a utility analysis, there are still many more considerations a strategic evaluation would use to enhance the value of the feedback on the system.

First, the impacts of the improved strike rates would be linked to the bottom line and to other important outcomes of relevance to organizational strategy. Second, there would be a deliberate search for the *unintended* effects (both positive and negative) of introducing the system (e.g., impacts on workforce diversity, or on the perceived attractiveness of the organization to recruits). Third, the selection methods used would be compared with alternative ways of achieving results of similar or greater value. And fourth, performance on all these dimensions would be combined to yield an overall determination of the merit of the selection system, relative to its alternatives.

Thus, we have moved to the wider evaluation question, "To what extent does the selection system cost-effectively support the organization's strategy by producing outcomes of the greatest possible value given the available resources?" Now *that* is the kind of information decision makers can really put to work!

Jeanne. A validation study focuses on developing an appropriate decision tool for a specific job and context. A Strategic Evaluation study employs a broader systems view. For example, in a selection context the strategic evaluator will begin with the strategy (e.g., hire and retain customer-service oriented staff). Using the strategy as a backdrop, the evaluator views the labor market, recruiting strategy, selection process, training and entry process, and work environment to identify what should be included in the evaluation. The focus in Strategic Evaluation is how the implementation of these various systems works together with the implementation of the validated decision tool to accomplish the strategic goal of hiring and retaining customer-service oriented staff.

Jennifer. The flip side of this argument is also heard—"Why do we need someone (i.e., the evaluator) to tell us something we already know? We "know" that this intervention works—why does it need to be evaluated?" Part of the purpose for evaluation is to assess and document the impact of an intervention for someone who won't take your word for it—they will want some sort of evidence showing that it does work. Also, organizations need to be able to understand what is working versus what is not working with the intervention so that it can be replicated and revised for future use. In doing so, it is possible to avoid reinventing the wheel, but rather to simply make it better.

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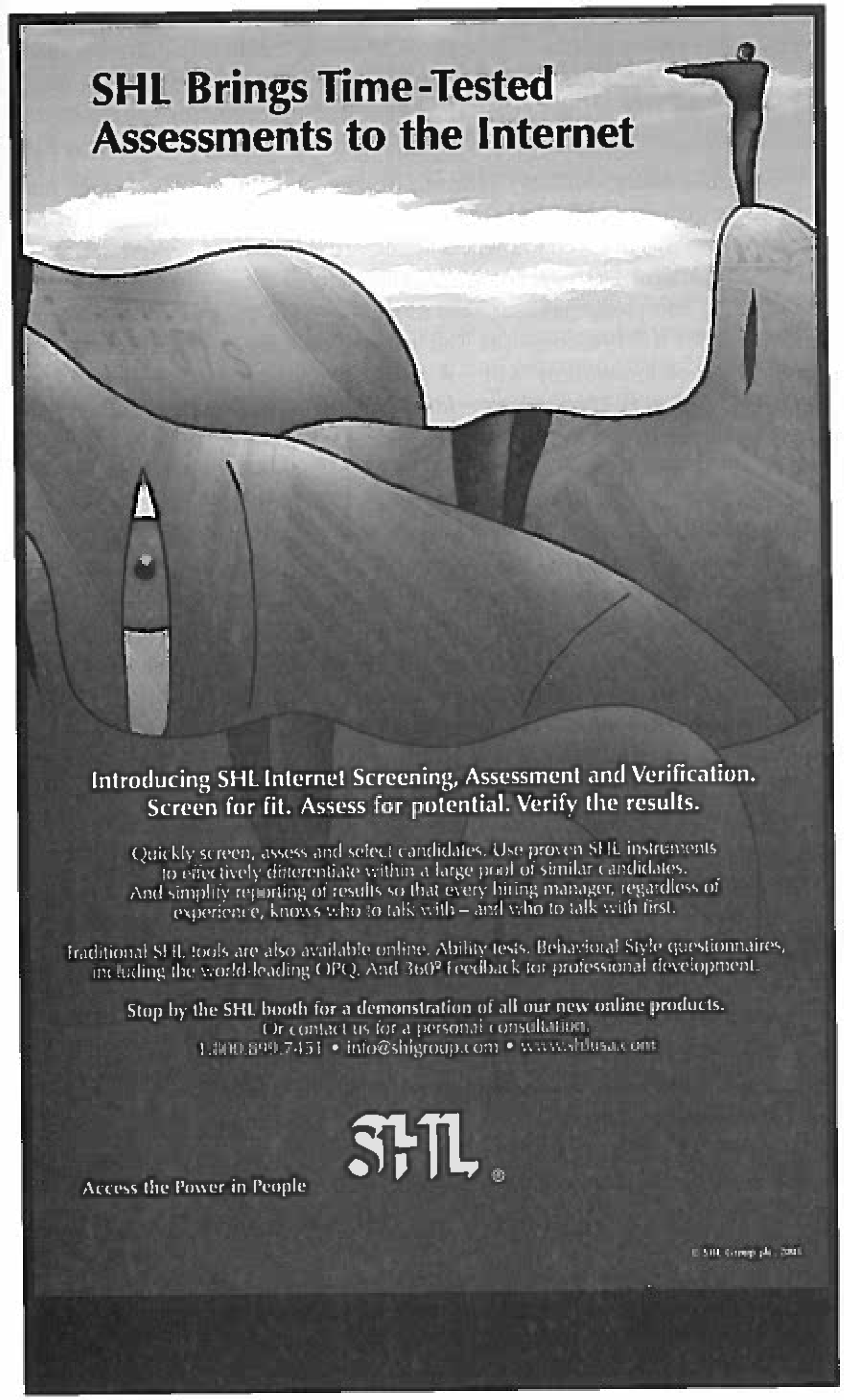
So there you have it: Strategic Evaluation from A to Z. Well, maybe not all the way to Z. Hopefully, however, we have managed to share this new development in our field in enough detail to spark some enthusiasm and further discussion of the topic.

Concluding Thoughts

By adding Strategic Evaluation to our repertoire, I-O psychologists can greatly enhance our role in promoting organizational effectiveness. Whether conducting evaluation from the inside or as an external evaluator, this method for understanding and enhancing program impact can add considerable value to I-O-based interventions. Unfortunately, few of us today seem to be aware of this outstanding tool that can build a clear link from I-O psychology-based programs to the strategic direction of organizations with which we work. The good news is that many of the techniques for doing this work are already in our skill set, and any we are missing are being developed elsewhere. Measurement theory, statistical techniques, and research design are all core elements of any I-O psychology degree and are critical to Strategic Evaluation. The other good news is that there is a whole body of literature out there that discusses evaluation-specific methodology and implementation issues when conducting "program evaluation" which is the premise upon which much of this work is based.

If you would like to hear more about Strategic Evaluation, there is a an e-mail list for sharing ideas and best practices on the topic: http://acad.cgu.edu/archives/evalsiop.html.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Advertising Industrial-Organizational Psychology

Michael Gasser, Adam Butler, Kelly Anderson
Dave Whitsett, and Rowena Tan
University of Northern Iowa

Gasser, Whitsett, Mosley, Sullivan, Rogers, and Tan (1998) showed that, within the general public and among business majors, the profession of I-O psychologist was not well known. The majority of those surveyed had never heard of the term I-O psychologist. This lack of recognition by potential users of the knowledge and services of I-O psychology is a problem for our profession for two reasons: (a) The leaders of a company with a human resource problem certainly will not call us if they have never heard of us; and (b) if employees had a better understanding of our training and credentials, then they might show more acceptance of the interventions we try to initiate. The problem, in a nutshell, is that this lack of recognition results in an underutilization of I-O psychology when there are many human resource problems that I-O psychologists really should address.

One logical solution to this problem is to advertise the field. Gasser, Butler, Anderson, Whitsett, and Tan (2000) showed that we are simply not doing this to the degree we should. For 17 of 19 advertisement strategies examined in the survey, most I-O psychologists reported that they had never used the method. The two advertisement strategies that had been used at least once by a majority of I-O psychologists—guest lecture in a business class and one-on-one conversation—are not the most efficient means for sending out a message to large numbers of potential users of what I-O psychology can offer. In this study, we chose to examine the influence of mailing written brochures to a sample of potential clients. While there are arguably much more effective means of reaching large numbers of people, this advertisement strategy is financially viable for all I-O psychologists, whereas other strategies, such as advertising in the mass media, are often not.

Method

Design: In this study, 2 groups of 50 participants were surveyed. Both groups were randomly selected from a listing of business leaders provided by the chamber of commerce of a community with a population of approximately 100,000 in Iowa. Members of the experimental group were sent a letter, addressed to them, that contained a one-page description of the services offered by a small consulting group, staffed by some of the authors, called Midwest Management Consulting (MMC). MMC had been in existence for 5 years at the time the study was conducted. All previous advertisement for MMC had been done by word-of-mouth. No formal advertisement strategy had been enacted. In addition to the information on MMC, a one-page description of the field of I-O psychology was included. The

description of the field of I-O psychology (see Appendix) was taken in part from an official brochure produced by SIOP. The other group—the control group—received no letter from Midwest Management Consulting.

Two weeks after sending out the letters, an undergraduate research assistant called both groups and administered a survey over the phone that assessed recognition of the field of I-O psychology and Midwest Management Consulting.

Participants: Of the 50 participants called in the experimental group, 27 were contacted and agreed to complete the survey for a response rate of 54%. 81.5% of this sample were men. The average age of this sample was 49.7 years with a standard deviation of 6.78. Members of this sample ranged in age from 35 to 65. The sample was well educated, with 77.8% of this sample reporting having graduated from college or receiving a post-graduate degree. Twenty-four of the 27 participants were Caucasian.

Of the 50 participants called in the control group, 22 were contacted and agreed to complete the survey for a response rate of 44%. 63.6% of this sample were men. The average age of this sample was 50.04 years with a standard deviation of 9.61. Members of this sample ranged in age from 33 to 64. This sample was also well educated, as 81.8% of this sample reported having graduated from college or receiving a post-graduate degree. Nineteen of the 22 participants were Caucasian.

Survey and Results

Each member of the two samples completed the survey by phone. Participants were asked several questions regarding their impressions of MMC and I-O psychology and desire to use the services that were described in the brochures. Two questions in the survey were pertinent to the issue of recognition of I-O psychologists and generated enough responses to make comparisons. Participants were asked if they had ever heard of a profession called industrial-organizational psychologist? 22.2% of the experimental group and 22.7% of the control group responded "yes" to this question. Participants were also asked if they had ever heard of a company called Midwest Management Consulting. 59.3% of the experimental group and 18.2% of the control group responded "yes" to this question.

Conclusion

1. This strategy of sending out a brochure to a sample of potential users of I-O psychology, using a description of the field derived from an SIOP brochure, did not increase the name recognition of I-O psychology over what was found in a sample of people never exposed to our mailing. For both groups, the large majority of business leaders in the community we examined had never heard of the field of I-O psychology.

2. This strategy did increase the name recognition for the consulting firm

we operate that offers the basic services industrial-organizational psychologists have to offer. Unfortunately, this greater name recognition that was reported has not yet translated into increased usage by the potential clients targeted in our advertisement. In the 6 months following the advertisement, none of the consultations for which we have been contacted has come from the clients targeted in the advertisements. All consultations have resulted from word-of-mouth advertisement by previous clients.

What to Do

By itself, sending out mailings as a method of advertisement may simply not have enough impact to create the name recognition the field of I-O psychology needs. It is possible that this method would have more impact if the materials mailed were designed by advertising specialists. Our goal was to explore what could be done by the "typical" I-O psychologist that does not work for a large consulting group and must contend with limited resources. In addition, this method may be much more effective if combined with similar messages coming from other media, such as newspaper, magazine, radio, or television advertisements.

To do either of these enhancements, more resources must be available than what are present in our coffers. This would have to be undertaken by a larger organization to promote all of its members. In a recent survey of SIOP members by Waclawski and Church (2000), 2 of the 3 most poorly ranked areas of satisfaction for SIOP members focused on the ability of SIOP to promote I-O psychology to business and other areas of psychology (the third related to room availability at SIOP conferences). Perhaps it is time for SIOP to begin moving to rectify this dissatisfaction with a more vigorous advertising campaign.

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Appendix

Description of the Field of Industrial-Organizational Psychology

One might ask, "What are the professions of the members of Midwest Management Consulting?" The professional staff members of MMC are industrial-organizational (I-O) psychologists. I-O psychologists are individuals who specialize in human behavior in the work environment. MMC staff

members operate in various roles. They are scientists, consultants, and teachers. I-O psychologists facilitate responses to work-related issues by acting as advisors and catalysts for business, industry, academic, health, labor, public, and community organizations.

I-O psychologists work in conjunction with organizations in the areas of:

Selection and Placement

As experts in personnel *Selection and Placement*, I-O psychologists help develop organizational assessment techniques. They validate test instruments. They also optimize employee placement.

Training and Development/Organizational Development

I-O psychologists provide necessary services concerning *Training and Development*. They identify training and development needs and formulate training and management programs to respond to these needs. Following the completion of training programs, they evaluate program effectiveness. I-O psychologists are also trained in aspects of *Organizational Development*. They analyze organizational structure. They maximize personnel satisfaction and productivity. They also facilitate change within the organization.

Performance Measurement/Quality of Work Environment

I-O psychologists develop measurement criteria. They document the utility of created measurements. They also evaluate overall organizational effectiveness. They help enhance personnel productivity. They identify aspects of work satisfaction. They facilitate the redesign of jobs to enhance meaning.

I-O psychologists are facilitators, developers, and advisors whose interests lie in the continuous quest for positive, effective and efficient practices in industries and organizations.

Building a Better Literature Review: Reference and Information Sources for I-O Psychology

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The literature review is an important component of any research endeavor. Good literature reviews reduce unnecessary duplication of efforts and help to put papers in context by building on the previous work of others. The identification and use of appropriate resources is of primary concern when conducting literature reviews. The number of reference and information sources available for conducting literature reviews has increased significantly in recent years. Traditional printed sources of information (e.g., *Psychological Abstracts*) have been joined by an array of other media including CD-ROM, online databases, and ever increasing World Wide Web (www) technologies. The purpose of this paper is to provide a rudimentary introduction to several search techniques and a brief guide to some of the numerous information sources which are relevant to I-O psychology. The knowledge and effective use of these available resources can greatly improve the efficiency and quality of literature reviews.

Issues in Doing Literature Reviews

Recall and precision are key issues in the literature search process. Recall refers to the percentage of all relevant sources that are actually located during the literature search, while precision is the percentage of all located sources that are actually relevant to the researcher's interests. As expected, recall and precision are often inversely related. Recall is enhanced by using more sources and spending more time on the search, but this process is likely to decrease precision, resulting in a larger body of irrelevant material that must be sorted through in order to find useful material (White, 1994). A good literature review will not necessarily find every document that is related in some way to the research topic; however, it will find the important articles, including those that are outside the researcher's normal scope of reading materials (White, 1994).

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Strategies for Performing Literature Reviews

Wilson (1992) outlined five major search strategies which encompass a variety of techniques for locating references. These include (a) consultation, (b) searches in subject indexes, (c) browsing, (d) citation searches, and (e) footnote chasing. The following paragraphs provide a brief description of each technique along with a representative source for each technique.

Consultation. Consultation involves locating references by corresponding with others. It tends to be a low-recall strategy, since it is limited by the knowledge, memory, and biases of correspondents. Conversely, it is generally high in precision because the references provided have been prescreened for relevance. A major advantage of consultation is the ability to locate unpublished materials. Internet technology (e.g., e-mail, discussion groups) has greatly increased the utility of consultation as a search technique. For instance, *RMNET* (see the full description in the source list that follows) is an e-mail list which provides a forum for discussion on a variety of topics related to I-O psychology. Unlike many e-mail lists, *RMNET* also provides a searchable subject index which allows the user to access previous discussions on a topic of interest.

Subject indexes. Most researchers are familiar with retrieving unknown publications by searching subject indexes (e.g., *PsycINFO, ABI/INFORM*). Subject indexes are used to search bibliographic descriptions which generally include the title, abstract, and authors of a document in addition to controlled-vocabulary terms (e.g., subject headings, index terms) which are added by the database producer. Subject index searching tends to be high-recall and low-precision since a large amount of irrelevant information is often retrieved. The precision of subject index searching can be improved by combining keyword searches of abstracts and titles with controlled-vocabulary searches (e.g., locating documents by subject heading). In addition, many databases offer search-refining capabilities such as the ability to combine multiple searches and limit searches by type of publication, year, language, or other characteristics.

Browsing. A third search technique identified by Wilson (1992) is browsing, which is literally defined as browsing through materials (e.g., library shelves, journal indexes) to find relevant information. Browsing is a high-recall strategy, since the amount of information collected is limited only by the researcher's willingness to continue searching. However, it generally results in low-precision retrievals, since large volumes of information must be evaluated for relevance (White, 1994). As with other search strategies, technology is improving the efficiency and effectiveness of browsing. For instance, *Current Contents*, an electronic database, simplifies and enhances the browsing strategy by indexing the tables of contents of selected journals.

Citation searching. This extremely powerful, and potentially neglected,

search technique focuses on locating references that cite known articles published previously. The citation search begins by identifying an influential article on a given topic. Next, a citation index (e.g., *Social Science Citation Index, SSCI*) is used to locate all of the articles that were the original sources. For instance, a researcher doing a literature review on organizational socialization could use *SSCI* to locate articles that cite Schein's (1990) seminal *American Psychologist* article on the topic. Once additional materials have been located, the process can be repeated using the new materials as the starting point for additional citation searches (White, 1994). As such, citation searching is extremely useful for tracing the orderly progression of a body of literature. In contrast to most other search strategies, both recall and precision tend to be high for well-constructed citation searches. Unfortunately, Cooper (1985) reported that only 9% of authors surveyed reported using computer searches of citation indexes as a means of gathering resources.

Footnote chasing. A closely related strategy, footnote chasing, is the process of locating useful information by searching the reference sections of other papers (e.g., topical bibliographies, meta-analyses) which focus on the topic of interest (Wilson, 1992). Footnote chasing tends to have high precision, since other authors have reviewed the material and found it to be pertinent to the content domain. However, recall is dependent on the quality of the literature review in the source materials. *SSCI* provides the capability to conduct electronic footnote chasing, since it indexes the cited references for database entries. The combination of citation searching and footnote chasing using *SSCI* is an extremely powerful search technique.

Reference and Information Sources for Doing Literature Reviews

The Appendix presents a selected list of reference and information sources that may be of use to researchers in the I-O field. Most local libraries can provide information on accessing and using these sources. In addition, major vendors such as OVID and ISI have Web sites that provide information and access to databases. It is important to note that this is not in any way an exhaustive list of reference and information sources relevant to the I-O field. The total number of potentially useful reference and information sources is enormous. It is our hope that providing representative examples of potential sources will be of practical value by increasing the scope of reference materials considered for use by researchers in the I-O field.

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Appendix
Selected Reference and Information Sources for I-O Psychology[2]

ABI/INFORM (University Microfilms International). This database contains over 550,000 citations, providing complete bibliographic information, abstracts, and selected full-text articles from more than 1,000 national and international business and management periodicals. ABI/INFORM's coverage of human resources management and organizational behavior is particularly relevant. Coverage: 1971 to the present.

Current Contents: Social and Behavioral Sciences (Institute for Scientific Information). *Current Contents* indexes the tables of contents, with complete bibliographic information, for over 1,375 journals in the social and behavioral sciences. Full-length author abstracts are available for approximately 85% of the articles and reviews. One unique and very useful feature is the inclusion of reprint author addresses. The database is available in multiple electronic formats. Coverage: 1969 to the present.

ERIC (U.S. Department of Education; Educational Resources Information Center). ERIC is the most comprehensive database covering the literature in education. The database, available in a variety of electronic formats, corresponds to two print indexes: *Resources in Education (RIE)* and *Current Index to Journals in Education (CIJE)*. The *RIE* file covers the document literature in education including such sources as conference proceedings and technical reports, while *CIJE* provides comprehensive indexing of nearly 800 periodicals. The ERIC database is an indispensable resource for researchers in the training and development field. Coverage: 1966 to the present.

ERIC/AE Test Locator (ERIC Clearinghouse on Assessment and Evaluation). The *Test Locator* is a joint project of the ERIC clearinghouse, the Library and Reference Services Division of the Educational Testing Service, the Buros Institute for Mental Measurements, and Pro-ED test publishers. The *Test Locator* consists of several components providing a variety of information including (a) descriptive information, including availability, for over 10,000 tests and research instruments; (b) citations to reviews of educational and psychological tests and measures; and (c) names and addresses of over 900 major commercial test publishers. The Test Locator can be found at the following URL: http://www.ericae.net/testcol.htm.

[2] A more comprehensive list of available reference and information sources is available from the first author upon request.

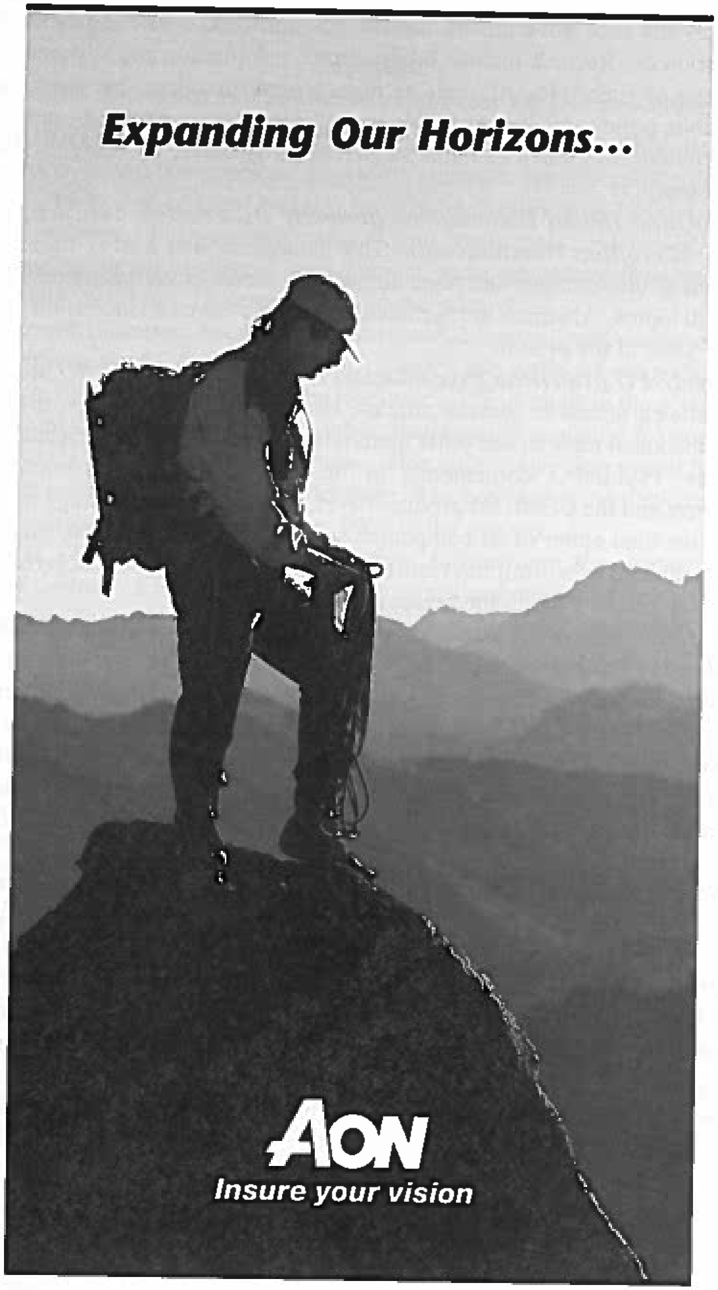
NTIS (National Technical Information Service). *NTIS* delivers comprehensive coverage to unclassified technical reports from research sponsored by the U.S. government, foreign governments, federal agencies, and other sources. Records include bibliographic information and abstracts with coverage of such relevant areas as management practices, human factors, and public policy. *NTIS* is available in multiple electronic formats and is the sole provider for numerous items located in its database. Coverage: 1964 to the present.

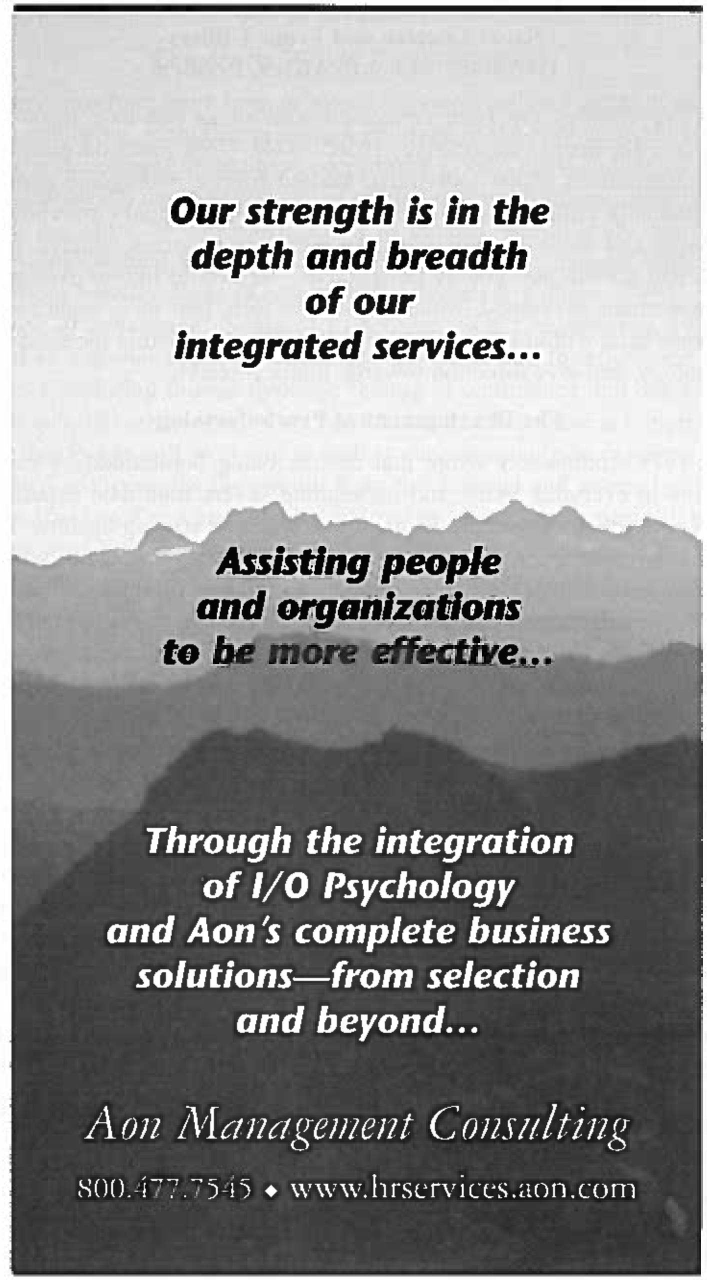
ProQuest Digital Dissertations (formerly Dissertation Abstracts, University Microfilms International). This database contains over 1.6 million citations to dissertations and selected master's theses covering approximately 3,000 topics. Abstracts are included for records indexed since 1980. Coverage: 1861 to the present.

PsycINFO (American Psychological Association). *PsycINFO* provides unparalleled access to journal articles, books and book chapters, dissertations, technical reports, and other materials from psychology and related disciplines. PsycINFO corresponds to the printed volume *Psychological Abstracts* and the CD-ROM product PsycLIT, although its coverage is more extensive than either of its companion sources. As of June 2000, the database contained over 1 million records and indexed over 1,400 scholarly journals. Coverage: 1967 to the present.

RMNET (Research Methods Network, Research Methods Division, Academy of Management). This e-mail list is an excellent resource for current discussions on an extensive variety of primarily methodological topics. In addition, RMNET allows the user to conduct keyword searches of its rich archive files. The RMNET coordinator is **Jeff Edwards** (jredwards@unc.edu), and the e-mail address is rmnet@listserv.unc.edu. RMNET access is limited to members of the Research Methods Division of the Academy of Management.

Social Science Citation Index (SSCI, Institute for Scientific Information). Arguably the most powerful social science literature searching aid currently available, the *SSCI* indexes 1,725 social science journals and selected social science related articles from an additional 3,300 journals. The *SSCI* distinguishes itself by providing the option of cited reference searching. Using this strategy, the researcher can identify a seminal article in a given area and locate every article published since that cited the original source. As additional articles are uncovered, the procedure can be repeated in a process called "cycling." Thus, the *SSCI* provides unparalleled access to the progression of a given body of literature. The *SSCI* is published in print and multiple electronic formats. Coverage: 1972 to the present (weekly updates).


Expanding Our Horizons...
AON
Insure your vision


Our strength is in the depth and breadth of our integrated services...
Assisting people and organizations to be more effective...
Through the integration of I/O Psychology and Aon's complete business solutions—from selection and beyond...
Aon Management Consulting
800.477.7545 • www.hrservices.aon.com

Psychofortology:
Explaining Coping Behavior in Organizations

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I-O psychology has been concerned with stress and its effects on the workforce for many years (Selye, 1956; 1974). This focus on disease and the vulnerabilities of the individual, studied from a pathogenic paradigm, was gradually replaced by a new focus on the individual's psychological wellbeing and skills to cope with the demands of stress, studied from a health and growth psychology perspective. We would like to explore how this movement developed, which constructs form part of it, what research outcomes exist within I-O psychology, its application within the field of I-O psychology, and give direction towards future research.

The Development of Psychofortology

In 1979 Antonovsky wrote that despite being bombarded by multiple stressors in everyday living and undergoing severe traumatic experiences, there are individuals who are coping quite well and staying healthy. In trying to answer the question of why people stay healthy (instead of why people get sick, as in the case of the dominant pathogenic orientation), he developed the new paradigm of salutogenesis (meaning the origin of health).

Some researchers believe that the pathogenic view and salutogenesis can be described in terms of a "health disease/ease continuum," implying that the individual will function between the two poles of terminal illness and total wellness (Strümpfer, 1990). It could be proposed that the criteria for psychological wellbeing and the criteria for psychopathology are to a great extent independent and that wellbeing and pathology are not just the end-points of the same continuum. The absence of psychopathology does not necessarily indicate wellbeing or the presence of psychological strengths. In the same sense, low scores on measures of wellbeing or psychological strengths do not necessarily indicate pathology.

Strümpfer (1995) argued on the basis of Antonovsky's writings that this is a much more encompassing problem than that of factors that influence physical health, and proposed that the paradigm be broadened to include sources of strength and named fortigenesis (the origin of strengths), which can be seen as more embracing and holistic than salutogenesis. Wissing and Van Eeden (1997) further argued that the focus should not only be on origins of psychological strengths, as implied by the names salutogenesis and fortigenesis, but also on the nature, dynamics and enhancement of psychological wellbeing. They suggested that the term psychofortology (the science of psychological strengths) be used for the domain of psychology in which psychological well-being is studied. Within this new domain, a better understanding of psychological strengths will point to new directions for capacity building, the prevention and enhancement of the quality of life of individuals, in their private as well as work lives.

Constructs Within Psychofortology

Many constructs have been proposed to conceptualize aspects of psychological wellbeing, including processes involved in the coping of individuals and the enhancement of wellness. Strümpfer (1990) identified six of these, which supposedly describe the core of salutogenic and fortigenic functioning, namely the sense of coherence, locus of control, self-efficacy, hardiness, potency, and learned resourcefulness. Research results indicate high intercorrelations between these (Kossuth, 1998; Viviers & Cilliers, 1999).

Sense of coherence. Sense of Coherence (SOC; Antonovsky, 1987) is defined as a global construct that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that one's internal and external environments are predictable and that there is a high probability that things will work out as well as can reasonably be expected. The individual will perceive the stimuli from the external and internal environment as structured and predictable (referred to as comprehensibility), he/she will perceive that resources are available to meet the demands posed by these stimuli (referred to as manageability), and that these demands are challenges worthwhile spending his/her energy on (referred to as meaningfulness). This construct can be measured with a high level of reliability and validity by the Sense of Coherence Scale (Antonovsky, 1987). The scale consists of 29 items, measuring the sense of coherence in general (total score) as well as the three mentioned core components.

Locus of control. Locus of Control (LOC) describes the extent to which individuals believe that their behavior has a direct impact on events that follow. Rotter (1966) described individuals who believe that they can control what happens to them as having an internal locus of control (internals). Those who tend to think about what happens to them as a function of luck, fate, or powerful others, have an external locus of control (externals). Several measures for this construct are used in research, of which the Internal–External Control Scale (Rotter, 1966) is probably the most well known. However, the Locus of Control Questionnaire (LCQ; Schepers, 1995) is used more frequently in South African research because of its favorable psychometric qualities. The LCQ consists of three scales, namely external control, internal control, and autonomy. It is important to note that, where the scale of Rotter viewed internal and external locus of control as dependant variables on a continuum, Schepers postulates that internal and external control are not bipolar opposites but independent variables instead. It is therefore possible for an individual to achieve a high score on external as well as internal control on this questionnaire.

Self-efficacy. Self-efficacy refers to individuals' belief that they can successfully perform the behavior required for a specific task. It is a relatively enduring set of beliefs that one can cope effectively in a broad range of situations (Bandura, 1982). Self-efficacy expectations determine what activities people engage in, how much effort they will expend and how long they will persevere in the face of adversity. Well known measuring instruments for self-efficacy are the Self-Efficacy Scale (Sherrer & Maddux, 1982) indicating generalized self-efficacy beliefs and the Eight-Item Self-Efficacy Scale developed by Thoms, Moore, and Scott (1996), measuring self-efficacy beliefs regarding a specific task or situation, such as participation in self-managing work teams.

Hardiness. The construct of hardiness evolved out of the stress and coping literature to explain individual differences in stress resiliency (Kobasa, Maddi & Kahn, 1982). The concept of hardiness is considered a personality style consisting of three interrelated factors, namely commitment (individuals who involve themselves in whatever they are doing), control (individuals who believe and act as if they can influence the events shaping their lives), and challenge (individuals who consider change not only as a threat but also as an opportunity for development). The construct can be measured by using the 50-item Personal Views Survey (Kobasa et al., 1982).

Potency. In a situation where the resources at the disposal of a person are inadequate for meeting certain demands and this causes tension (a disturbance in homeostasis), potency will enable the individual to restore this homeostasis and thus prevent the tension from turning into lasting stress. Potency refers to a person's enduring confidence in his/her own capacities—resulting from successful coping experiences in the past—as well as confidence in and commitment to the social environment, which is perceived as basically ordered, predictable and meaningful (Ben-Sira, 1985). This construct emphasizes that coping has to be considered as a product of interaction between the person and the environment. Potency as described above, can be measured effectively by the Potency Scale (Ben-Sira, 1985), which contains 19 items measuring self-confidence, mastery, commitment to society, as well as the perceived meaningfulness and orderliness of society.

Learned resourcefulness. Learned resourcefulness refers to a set of well-learned behaviors and skills by which individuals self-regulate or control their behavior. It is seen as a personality repertoire that includes mainly three functions—for example, regressive self-control, reformative self-control, and experiential self-control (Rosenbaum, 1990). Regressive self-control helps the individual to regulate internal responses, such as pain, emotions, and cognition that interfere with the smooth execution of an ongoing task. Reformative self-control enables individuals to change their current behavior in the hope of achieving a greater reward in the future by using planning skills, problem-solving strategies, and the delay of immediate gratification. Experiential self-control enables individuals to experience and

enjoy unknown and pleasurable activities to the fullest. Learned resourcefulness can be measured by the Self-Control Schedule (SCS), consisting of 36 items that covers (a) the use of cognition and self-instruction to cope with emotional and physiological responses, (b) application of problem-solving strategies, (c) ability to delay immediate gratification, and (d) a general belief in one's ability to self-regulate internal events (Rosenbaum, 1990).

Other constructs relating to the maintenance and enhancement of psychological wellness are constructive thinking, satisfaction with life, emotional intelligence, reality orientation, self-actualization, resilience, toughness, coping, social support, dispositional optimism, personal causation, self-directedness, social interest, and sense of humor. All of these show some kind of conceptual resemblance to the above six defined constructs.

Research on Psychofortology Within an I-O Psychology Context

A vast amount of psychofortology research has already been done in the field of I-O psychology in South Africa, Israel, Europe, and the United States. A few examples of research projects undertaken on different levels within the organization will be highlighted (a complete list of references is available from the authors).

At the individual level, for example, adaptation in the integration process of the South African National Army has been researched. At the group level, teamwork and comparisons between factories that make specific interventions in team petitions and its impact on efficacy, self-efficacy, responsibility, motivation, and job satisfaction have been investigated. At the organizational level, salutogenesis has been tested as a paradigm in change management.

Research findings are available including the impact of teams on managers, executives, supervisors, and blue-collar workers. Different occupational fields have also been studied including farm workers, nurses, air cabin attendants, police officers, data processing personnel, and industrial operatives in the chemical industry. Data is also available with relation to different aspects of an employee's career, for instance organizational entry, career maturity, career advancement, career development, and career self-efficacy expectations.

The effect of the above constructs has also been investigated in terms of certain outcomes in the organization such as job performance, organizational commitment, and job satisfaction and with relation to certain experiences of employees like occupational burn-out, role ambiguity and role conflict, role strain and guilt, job insecurity, and job stress. The relationship between the constructs and coping with certain working conditions has been researched, for instance, work schedule stress and wellness in female air cabin attendants, the influence of hardiness and tenure in shift work as predictive variables for coping with shift work, and the relationship between locus of control and attitudes towards flextime.

Interpersonal relations in the organization can also be influenced by salutogenic/fortigenic functioning as studies on peer support, supervisory support, and participative management indicate. Current research efforts are also being undertaken with respect to the influence of some of these constructs on the quality of life amongst retrenched workers and the unemployed.

Application in the Field of I-O Psychology

With work occupying such a prominent place in the lives of most people, it is an important area for the development of and research on psychofortology (see Strümpfer, 1995). From the known research results, it is clear that many insights relating to coping behavior have come to the fore, which already have had a profound impact on the understanding of the organization and its effectiveness.

From an organizational diagnosis point of view, quality of work life can be predicted by identifying the psychofortological functioning amongst employees. As part of an organization development strategy, the stimulation and enrichment of employees' coping repertoires will enhance this quality as well as work performance. Equipped with the relevant skills and coping mechanisms, employees will experience the work environment as comprehensible, manageable, and meaningful, resulting in greater commitment toward the organization, thus fostering the development of the above-mentioned constructs.

This integrated process can start with the selection and recruitment of new employees and continue into the organizational socializing mechanisms such as induction and performance appraisal. In terms of organizational design, wellness can be fostered by presenting information in an ordered, structured, and predictable fashion linking to the comprehensibility aspect of sense of coherence.

Training and development interventions planned and presented from this paradigm will help to diminish and prevent organizational diseases such as stress, burn-out, and alcohol abuse and at the same time enhance psychological and physical wellness. Career planning and the advancement of personnel can also be addressed in accordance with career self-efficacy beliefs. By focusing on the mentioned resources of employees, an alternative viewpoint to implementing and facilitating adaptation to organizational and environmental change comes to light that could help organizations and individuals to cope with the dynamic working environment.

Future Research

Past research has focused on enabling resources and protective environmental factors as well as intrapersonal factors and characteristics of wellness (Wissing, 2000). Future research should focus more on processes that facil-

itate wellness.

One example might be to investigate how the different components of well-being—namely the cognitive, emotional, physical, and social—interact in order to manifest wellness. Future research could also explore the possibility that individuals do not only differ with regard to their degree of psychological well-being, but that they may also differ in their particular manifesting strengths and patterns of wellness.

In terms of organizations, the aspect of collective well-being might be explored further as well. The question to be answered here is what is the balance or mix of individual and collective wellness, and how will this emerge within different units or departments, teams, and the organization as a whole?

Future research might also explore the possibility of the existence of salutogenic/fortigenic profiles within different occupational groups or professions. For example, does the profile of a sales representative differ from that of a nurse or an executive?

The relationship between organizational culture and the profile of the workforce might also be examined to determine if culture hinders or facilitates the psychological well-being of its members and how this in turn might influence the effectiveness of the organization overall.

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Practice Network
Trends and Issues in I-O Psychology: A Glimpse into the Crystal Ball

Michael M. Harris
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As the editorial board of *TIP* changes, and I rush to figure out what to write about next, it seems fitting to think about changes affecting our field. After all, in many ways, the world moves faster than ever before. Just less than 1 year ago, we were all amazed about how much the economy continued to grow, how tight the labor market was, and many were wondering whether there was a new business paradigm. In what seemed to be an incredibly brief amount of the time, the Net bubble burst, the stock market slumped, and the economy slipped. At the same time, who would have guessed that it would take so long for our next president to have been decided?

A further reason for writing about coming changes in our field is that it may serve as an impetus for conducting HRM planning processes. Although I suspect that relatively few organizations conduct much in the way of serious HRM planning (Readers: Do you have a different experience in this regard?), I believe that HRM planning activities deserve greater emphasis (In fact, I read recently about a religious organization using scenario planning to help plan for the future; to learn more about this technique go to www.marin.cc.ca.us/scenario/what_is.htm) and hope that I-O psychologists become more involved in this important activity.

With this in mind, I turned to some practitioners and asked the following questions:

- What will be the key new and emerging topics that I-O will address in the next 5 years?
- How has I-O changed over the years since you have been a practicing professional?
- What are the key challenges to I-O practitioners over the next 5 years?
- What suggestions do you have for I-O psychologists who are just beginning their careers?

You should note that, quite accidentally, I picked I-O practitioners who had received their PhD in 4 different time periods, namely, the 1970s, the 1980s, the early 1990s, and the late 1990s. Their responses are summarized next.

What will be the key new and emerging topics that I-O will address in the next 5 years?

In terms of this question, three of my four respondents explicitly men-

tioned the use of technology in I-O psychology, particularly in connection with traditional I-O tasks, such as job analysis, testing, performance management, and learning. Despite the burst "Net" bubble, the use of Web-based assessments may be growing in our field, rather than shrinking. At the same time, there was some acknowledgment by two of my respondents that privacy issues may become a greater concern to I-O psychologists. It has been pointed out in other places that all it might take is one or two well-publicized incidents involving the accidental release of unauthorized information over the Internet for employees to become highly suspicious of Web-based I-O tools.

A second theme that was mentioned in one way or another by all four of my respondents was recruitment/retention issues, or to use a term that is becoming increasingly popular in the HR world, talent management. Talent management implies an entire cycle of activities, beginning with recruitment and continuing with retention, to attract, develop, and retain valued employees. One of my respondents, for example, noted that performance management systems are increasingly being used for developmental purposes, "as a means of retaining key [employees]." When you think about this for a minute, it is noteworthy that I-O psychologists have a very different perspective on this topic. First, we tend to focus on *selection*, with the implicit assumption that there is a large pool of applicants to choose from. Second, I-O psychology has traditionally focused on *turnover*. While a huge literature has developed, it may behoove us to also study why some people stay when they have the option of leaving; perhaps there will be a different set of predictors for those top performers in widely sought fields. Third, and I believe it is endemic to the field, I-O psychology tends to perceive these as independent and distinct issues, when in fact, I believe they may be closely related processes.

In addition to these two themes, respondents mentioned several others, including emotional intelligence, work–life balance issues, licensure, and overlap between disciplines in psychology (e.g., clinical and counseling areas moving into traditional I-O areas).

How has I-O changed over the years since you have been a practicing professional? This question produced some rather interesting comments. Recall that each of my respondents received their PhD at a different point in time, and their responses may reflect some of those differences. Indeed, the answers I received reflect a mix of positive, neutral, and even somewhat negative reflections on the changing practice of I-O psychology. I'll start with what I consider positive changes, then move to the neutral changes, and conclude with what I perceive as the negative changes (well, they say that the carnivore's meat is the vegetarian's poison, so I am a little cautious in judging the relative goodness or badness of them!). With that legality out of the way, there were probably three changes that I would characterize as quite positive:

- A greater awareness among organizations of the contribution that I-O psychology can make
- Less of a barrier between the "I" and the "O" of I-O psychology
- Reduced "estrangement" between business faculty and I-O departments

You will probably agree (though some might not, I suppose) that all three of these are positive trends. There were, not surprisingly, a number of what I would call neutral trends, though one could easily make an argument that some of these are quite positive or even negative trends, depending on your perspective! These trends included:

- Greater government regulation in terms of personnel selection (e.g., more laws)
- The growing presence of I-O consulting firms on a worldwide basis•
- The potential for I-O psychologists to become more involved in organizational mergers and buyouts

Two rather negative changes were noted as well. One was a perception that there was a decreasing rigor in I-O psychology and greater emphasis on marketability of I-O psychology programs. Another respondent echoed a similar concern when answering the question of future challenges, by stating the need to uphold basic principles despite pressures to cut costs. So this may be a more widespread problem for I-O psychologists than I would have expected. What do you, the reader, think? Is there more pressure on I-O psychologists to sacrifice quality for the sake of selling products/services? I would be eager to hear your thoughts.

Second, it was observed that I-O psychologists are more transient in their jobs and roles. While this respondent also pointed out that this reflects general work trends, it would seem that because our work is a support function, rather than a key function, we may not always be considered central to the organization. That being the case, I would expect that in this highly competitive world, I-O psychologists should always be prepared for major role changes. This provides a nice lead-in to my next question:

What are the key challenges to I-O practitioners over the next 5 years? The major theme in response to this question was, briefly stated, staying relevant. As one respondent summed it up, I-O psychologists need to be able to speak to managers in their language and must be able to address the "bottom line." Stated in somewhat more familiar terms, this respondent observed that it was critical to completely bridge the scientist-practitioner gap. Another respondent observed that even the title of "I-O psychologist" was rarely used in industry today and that new job titles, such as process engineer and consultant, reflected the new reality. Yet at the same time, I wondered why so much emphasis seemed to be placed on "proving" our worth and value. Would accounting, finance, marketing, or management information systems staff, for example, ever question the importance of their

function to an organization? Somehow I doubt it! What does that say about our field? I would appreciate any replies to this issue.

What suggestions do you have for I-O psychologists who are just beginning their careers? I couldn't resist asking this question. It is so interesting, insightful, and darn right useful that I couldn't wait to see what I got. Lots of different thoughts, of course, were provided. One interesting suggestion was to talk with everyone, including lower level staff, in one's organization. I think this is an excellent suggestion! A second, rather novel, suggestion was that students should decide early on whether they want to be practitioners or academics. According to this respondent, the PhD may not even be the best degree, particularly if one is working as an inhouse consultant. Playing devil's advocate, I wonder how many graduate students start with one goal (e.g., to become a practitioner) and then change along the way (I certainly did). Various other valuable suggestions were offered, including learn how to write well (writing is a key KSA); get lots of feedback; develop a sense of urgency; develop technical skills (e.g., programming in HTML); be entrepreneurial; and network with people. I find it difficult to disagree with any of these suggestions!

To summarize this section, I feel compelled to add that new I-O psychologists must be flexible and capable of adapting to change. Also, lifelong learning seems to be today's motto. As a student recently wrote in a paper on e-Learning, yesterday's degree was a 4-year degree; today's degree is a 40-year degree. Today more than ever, I-O psychologists cannot afford to stop learning.

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I'd like to close this column with a joke: How many I-O psychologists does it take to change a light bulb? The answer is: It depends on the functions involved—are they essential or not? And what competencies are required? Can they be learned in the course of changing light bulbs or should we select people on that basis? What selection tools should we use to assess those competencies? Well, you get the idea!

As usual, please let me know what you think! E-mail me at mharris@umsl.edu, call (314) 516-6280, fax (314) 516-6420), or snail-mail me, Michael Harris, College of Business Administration, University of Missouri-St. Louis, St. Louis, MO 63121.

I thank the following individuals for their help in preparing this column: **Amy Bladen**, Merrill Lynch; **Elliot Lasson**, State of Maryland; **John Scott**, Applied Psychological Techniques; and **Joel Wiesen**, Applied Personnel Research.

TIP-TOPics for Students

Kim Hoffman
Tom King
University of South Florida

Well friends, this is our last segment of ***TIP*-TOPics**. Unfortunately, our time has expired and we have to relinquish this honorable post to one (or more) of our brethren. But of course, we have no regrets; writing this column and interacting with the folks at SIOP and the *TIP* editorial board (particularly **Allan Church**, outgoing *TIP* Editor, who has done a fabulous job) has been a great pleasure for us and one which will make us nostalgic for the good ole' days, down the road. The most appealing aspect of this endeavor has been communicating with each of you (even if only through written words) and having the opportunity to meet and interact with many of you via e-mail or at the conferences. We do look forward, however, to the next (set of) columnist(s), who will be announced at the SIOP Conference in San Diego.

For our grand finale we spared no effort in bringing you more insightful reflections, rantings, and musings. ***Meeting of the Minds: Scientist and Practitioner*** focuses on the joy of teaching and how the skills you develop in leading the classroom carryover to academic and applied career paths. In ***Making the Right Connections***, we make the observation that grad students sometimes do not develop all of the possible connections—namely other graduate students, in I-O or even in OB, HR, marketing, and so forth. Why not try to expand your network with your peers, who are going through the same trials and tribulations that you are, at this very moment. It may seem as though the opportunity just isn't there—but wait…we have a solution. Attend the annual IO-OB Graduate Student Conference, which is planned (and hosted) for students by students! And since the 2002 IO-OB Conference will be right here in tropical Tampa, Florida (University of South Florida), we want to personally invite all of you to come visit us. In ***TIPs for Balancing Life and Graduate School***, we have provided some practical information about every grad student's worst fear—finances and managing your loans, that you may not have thought about yet or even known. This is followed by our greatest *TIPs*—a compilation of all the tips in this segment that have come before.

This is Kim and Tom signing off. Thanks for the memories…and don't forget to find us at the Conference!

Meeting of the Minds: Scientist and Practitioner
The Joy of Teaching

At some point during our graduate school experience, most of us are asked to stand up in front of a wide-eyed, eager-to-learn undergraduate audience, capture their attention, challenge their intellect, and teach them something. "What?" you ask, "How am I supposed to teach somebody something when I know so little myself?" Don't worry (though we all do)—teaching can be one of, if not *the* most, rewarding experiences you have in graduate school, regardless of your career path! This segment will give you some tips in helping you to prepare or hone your teaching style, as well as provide some pragmatic reasons for taking the opportunity to teach as often as you can.

Okay, so you've just received word that you'll be teaching a/another class or lab. At first, you are nervous on many different levels, and rightly so—the job of teaching someone else is, after all, a huge responsibility. Your first reaction may be that you're not qualified; you know hardly anything of the subject matter, so how can you be expected to teach it? Again, don't worry; your job is not to be an expert and to then get your students to be (that is the goal of graduate school), it is to get them to think—to open their minds to alternate ways of viewing their world. Indeed, if you remember and adhere to this following quote from Einstein, we will guarantee that you will already be well on your way to becoming an effective teacher.

A reporter once asked Einstein what the speed of sound was. Einstein replied, "I don't know. I don't carry information in my mind that is readily available in books… a person does not need to go to college to learn facts. He can learn them from books. The value of a liberal arts college education is that it trains the mind to think—imagination is more important than knowledge." Einstein's genius extended well beyond science and mathematics.

With this principle in mind, you must first, before even considering the subject matter, sit down and think of the type of teacher you want to be. Believe it or not, you are an expert—you have been a student now for what seems like decades, so who knows better than you as to what works in the classroom. Sit and think of your best and worst teachers, then incorporate elements from the best, and be sure to steer clear of the habits and styles of the worst. It will be the experience, much more than the content, which your students will take away from your class. So be the teacher you always wanted others to be. You'll be amazed at the response (and gratitude) from your students.

You now know that your job is to teach your students to think and not to simply regurgitate information to them from a textbook. Ready to tackle the content, right? Not so fast, there is one key step before considering the "what you are going to teach" question. You must first, before going any further, find your passion. Do whatever you need to do to get it—buy it from a store, look for it in the stacks, or download it from the Internet—just

get it—as passion is the one thing that all great teachers have. Even if you are not passionate about the material, you can be passionate about the teaching experience. This is an opportunity to make a real difference in someone's education! Yes, you can be the one that students talk about to their friends, or even the one that they talk about in retrospect; "I remember taking such-and-such with so-and-so back in college…that was the best teacher I ever had…he/she really changed my life." Think back on all of your teachers; there are probably one or two that really stand out and got you excited about learning. So find your passion, so that you can be that special teacher to someone else.

Okay, you now understand your mission; you have found your passion and inspiration to teach, now it is time to get into content. First step, go to those who have taught the class before, and get all the helpful hints that you can (e.g., topics that students found particularly interesting). These faculty or fellow student teachers can be an invaluable resource; however, you must remember that this is going to be *your* class, not someone else's, so avoid taking other instructor's materials (textbooks, overheads, etc.) and using them as your own. Doing so will surely make for a forgetful experience for both you and your students. Once you have talked to other instructors, do your own research. Find what's interesting to you about the subject matter, and focus on that. Also, find a book (It need not be a textbook, how many of your undergraduate textbooks did you actually read?) that is both a good read and cutting edge in some respect. With enough hunting, you should be able to find one (often much cheaper than textbooks, which your students will thank you for) that not only contains solid content, but will also capture your students' attention and challenge their intellect. Believe us, the extra time spent in finding an alternative to the standard "dry" textbook will be well worth the effort, and it will help ensure that your class is a success.

Now it's time to prepare to teach. You may be a little nervous, though not nearly as nervous as you would have been had you not been fully prepared. In fact, you will find yourself excited and "chomping at the bit" to start the semester. This will be, after all, just as great an experience for you as it will be for your students! Design your class in such a way that it reflects your passion about teaching. There may be lecturing involved, but try to incorporate different activities into the class session. Shake things up a bit! Many instructors avoid group activities because they think students don't like it—wrong! Students enjoy group work when they enjoy the class and when there is an atmosphere that is conducive to learning. Also, don't be afraid to stray from the topic at hand, some of the best discussions are tangential ones. Simply put, take some chances in your teaching; some of your ideas may not pan out, but your students will appreciate the effort.

For those of you going the academic route, developing your teaching skills and style is a must-do. Though we personally feel that most schools undervalue the importance of teaching ability in assessing faculty performance (it's publish or perish, not teach well or perish), your future students will appreciate your teaching, even if your boss doesn't. One other practical matter for future academics: Start to prepare your teaching portfolio as soon as you are able. This will save you the headache of having to hastily throw one together as you start the job hunt (most schools offer training on building teaching portfolios).

For applied folks, you may think that you're off the hook, but you're not. Aside from the inherent rewards that come from doing something well, by teaching you will also gain invaluable experience in honing your presentation skills. Sure, we all have class presentations, but how well does that simulate the presenting we'll be doing once out in the "real" world? Teaching is dynamic. It forces you to think on your feet, and more importantly, it teaches you how to teach, in that you learn to explain things in such a way that is understandable to nonpsychologists. What better skill is there than that, in this segment preparing ourselves to enter corporate America?

So, whether future academic or practitioner, get up and teach! Take the responsibility of teaching passionately and seriously, but also make sure you have fun with it. Doing so will go a long way in the classroom and will undoubtedly make for a great experience for both you and your students. If you are still hesitant, try it anyway—you may never again get such an opportunity, and better yet, you may just find your new passion!

Making the Right Connections

In the past 2 years, we have made a concerted effort to persuade you that networking is a valuable skill to put in your professional tool kit. The skill of meeting and interacting with others who have similar interests is inherently useful and beneficial both as a means to end and a vehicle for advancing individual and group values and interests. While for some, networking has a less than desirable connotation, we argue that it's not only an effective way to create opportunities for yourself and your organization, but it helps establish and maintain a professional community. Most professional organizations or societies, such as SIOP, AOM, APA, and APS, embrace this idea and encourage members to network with each other at annual conferences. Of course, there are other reasons to hold conferences—for example, education, information dissemination, exchange and discussion of ideas—but at the heart of it, the main purpose is to network with other professionals or colleagues in the field, which allows these other activities to take place.

To understand our argument, let's examine what it is to network. The word network is a noun that means, according to Webster's, "*a group of interconnected or cooperating individuals*." The action of networking, then, is to build this group of individuals who cooperate with one another and are interconnected in some way. Nothing inherently negative or underhanded there, right? Perhaps a negative connotation is attached to the word as a

result of the way in which some people may "use" networks for their own gain. Or because others may feel slighted when friends, colleagues, or co-workers have opportunities that they do not, as a consequence of who they know. A closer look at the definition though, reveals that a network involves and requires cooperation among individuals, precluding the idea that individuals can continue to exploit them to advance their own agendas to the detriment of all others. While we are not arguing that some less than scrupulous individuals don't abuse their connections and power at times, we feel strongly that networking results in much more positive outcomes than many may realize.

Networks facilitate the dissemination of information, opportunities, and education, because oftentimes information travels faster through informal networks than formal communication channels. Also, we reap the benefits of strength in numbers through a network of people who will fight for the same cause. And staying interconnected with others allows us to expand our capabilities, as individuals, and as a profession. SIOP itself is a formalized network of professionals who interact in order to achieve a shared goal, which cannot be accomplished individually.

Unfortunately, there are no classes in how to establish or build a network of colleagues, and graduate students often are so preoccupied with reading, research, internships, comps, and possibly a personal life, that we may not realize the importance of networking. No doubt, some of you have mastered the connections with your advisor or faculty members, perhaps even with the other graduate students in your program. And, of course, many of us take the opportunity (when fiscally and temporally possible) to try our hand at networking at the SIOP conferences each year. Granted, schmoozing with the "names" at SIOP (you know, the ones who wrote all those articles you read for your research and classes) is a golden opportunity that you shouldn't miss but that leaves much fertile ground unsowed.

Look around you. Opportunities are throwing themselves at you; you just have to learn to recognize them. We are talking about the people in your program and colleagues at your internships (even those not in I-O) and peers at other programs in I-O, OD, MBA, HR, OB, and other related fields throughout the country. These are the people who will be shaping the field and influencing you (and vice versa) for the next 30 to 50 years. And these are the folks who, for the most part, have the same goals that you do in advancing our profession so that we can improve the organizations and work lives of millions of people. Why not make an effort to get to know them right now too, even though none of us have "names"...YET!

Of course, this is one of the main reasons that we have advocated a student network in SIOP (see January *TIP* issue for the response to our proposal), but we want to emphasize another, already established, means to network with your peers... the IO-OB Graduate Student Conference.

IO-OB Graduate Student Conference. A brief history…the conference was the brainchild of **Milt Hakel**, who was a faculty member at The Ohio State University. In 1980, the psychology and business departments cooperated to sponsor a conference for graduate students by graduate students. Ever since, it has been considered a privilege to host the conference, and each year a host is chosen through a proposal submitted to previous hosts. Kudos to Penn State, who just hosted the 2001 IO-OB Conference in March and to all of the previous hosts for all of your efforts to build a community of graduate students. Typically, graduate students are invited to make presentations to peers (only students are allowed to observe student presentations), so they can develop presentation skills and gather constructive criticism on their work, in a less intimidating atmosphere than may be found at SIOP or AOM. Often, speakers who are already established in the field, (i.e., **Wally Borman, Frank Landy, Wayne Cascio, Bruce Avolio, Anne Marie Ryan**, and a variety of others) are invited to give keynote addresses and lead workshops.

Ready? Here's the opportunity! Each year, graduate students put on their best garb and head to SIOP to rub elbows with those who have left a mark on our field. Great idea, but we are often so busy attending workshops, presenting posters, interviewing, or positioning ourselves for the chance to talk to the big names, that we can miss many opportunities to talk to each other. The solution: schmooze (and be schmoozed as, and by,) tomorrow's stars at the IO-OB conference. What a phenomenal opportunity to relax a little and talk to your peers who may be interested in the same topics as you or can give you an inside scoop on the best internship opportunity. You can have fun exchanging stories and commiserating or getting some advice on how to improve your research. Hey, it's easier to make friends and connections now…then you can say "I knew him/her when…" and gather bribe material for the next 25 years (ha, ha). And don't overlook the merit of finding a colleague who becomes a valued business partner or collaborator or even a treasured friend. We already have the opportunity, at least, to meet the established names, at SIOP; why not take advantage of the opportunity to meet each other, now, instead of waiting 10 to 15 years before we are established?

Do you know what else is advantageous about attending an IO-OB Conference? The conference is designed, developed, and hosted *FOR students BY students*. SIOP provides many opportunities for graduate students, but it is not centered on the issues, concerns, and ideas of graduate students—the SIOP Conference serves a much broader population. But IO-OB focuses exclusively on the needs, desires, ideas, and input of graduate students because those planning it are grad students. Offerings may include workshops and panel discussions on internship opportunities and management, business etiquette, transition from student to professional life, time and stress management, as well as exploration of research topics, trends in the

workplace, and student presentations of research. And speakers have addressed a range of topics including HR management, performance appraisal, effects of technology in the workplace, and the challenges facing I-O/OB in the next decade. Of course, IO-OB conferences typically offer social opportunities and entertainment—so you have the chance to relax, let your hair down and remember what FUN is; all work and no play made the grad student a less-than-well-rounded person. You don't want that, do you?

2002 IO-OB Graduate Student Conference. Where and when is the next conference, you ask? It just so happens that the University of South Florida has the honor of hosting the 2002 IO-OB Graduate Student Conference in sunny Tampa, Florida, March 1–3, 2002 (just in time for spring break for many of you). You'll be missing the graduate student event of the year if you don't come—and think of all those connections that will be lost and all the stories you'll be left out of! We want to make this YOUR conference, which means we want to know what it will take to get you to Tampa for the weekend OR maybe you'll decide to take your vacation at the beach for a few days before, warm up, and work on your tan! Who says you can't combine business and pleasure!

We'll be soliciting ideas from you via e-mail, e-mail lists, and any other way we can find you… so mark your calendars. If you want more information, please contact **Kim Hoffman** or **Tom King** at (ioob2002@yahoo.com). Looking forward to meeting you!

TIPs for Balancing Life and Graduate School From Rags to Riches…

We know the story—we live it, remember? Grad students (according to us anyway) are the poorest lot of them all, scraping by from paycheck to paycheck on our paltry stipends, often not knowing where we'll sleep that night or where the next meal is coming from. Oh, the humanity! Ok, so we got a little carried away, but the issue of money (or lack thereof) is a very real concern for most students and can add undue stress on our already stress-laden lives.

Live within your means. Most full-time students live below poverty level. What is interesting about our situation, however, is that most of us will instantaneously jump a couple tax brackets when taking a job upon completion of our degrees. (Ever wonder why those post-master's folks on internships never return to complete the PhD?) Our time in graduate school then becomes a great opportunity to live within our means (How's that for spin?). Be careful not to get yourself into too much credit card or high interest debt (student loans are generally considered good debt) as this will leave you unwittingly fretting over bills rather than your schoolwork.

Start to save. "Save? Save what?" you ask incredulously. As ridiculous as it sounds, it is possible for you to save, at least something, every month. It is not the amount that matters, it is the practice of saving itself. We are psychologists (remember?), so we know that engaging in repeated behavior over time causes it to become routine. So start saving a small amount every month. You'll be amazed at how good it makes you feel (some mutual fund companies allow regular monthly contributions of as little as $50, such as T. Rowe Price, Strong, and Invesco).

Tax tips. We are amazed at how few students are aware of some of the tax advantages available to them. For instance, most of us are eligible for the lifetime learning credit, which is a pro-rated credit of up to $1,000 dollars that directly reduces our tax bill. Also, another little-known fact—all interest paid on student loans for the first 5 years you are paying them back is tax deductible—so make plans to pay them off accordingly!

Most students that are forced to leave graduate school early do so because of money. Don't let this be you! Take the time now to learn about money and personal finance. This will not only create a better and happier situation for you now but will also prepare you for the near future when you will be making the big bucks. And even if there are moths flying out of your purse, don't let it affect your personal/school life. It's just money, right? Be appreciative for the nontangibles in your life, as those are the things that will best help you strike the balance we are all looking for. If that fails, consider this: Think of all those who haven't even the possibility of being in the position we're in. We are luckier than we often recognize....

Tying It All Together—A Trip Down Balancing Lane...

In writing this piece, we have learned that balance is enormously difficult to achieve, especially consistently. Instead, it is an elusive goal that most of us will constantly be striving to attain. And of course, it is a challenge that is worthy of our efforts in all aspects of our lives. Balance is not an end-state but rather a mindset or attitude that will help you maintain perspective. With this goal-driven audience it's easy to get lost in the minutiae and forget to appreciate the big picture. Maintaining perspective is the major theme that has emerged in all of our segments concerning balance. And just so we leave you with a balanced perspective, here are some of the ways you can gain perspective, which will in turn allow you to achieve some balance. With no further adieu, our greatest *TIP*s are:

"All work and no play..." Yeah, you get the idea, so go ahead and take a break. Actually, go further than that. Set aside time to allow yourself to have fun and forbid your mind and mouth from spewing any jargon or empirical data. A road trip, perhaps, to who knows where, might do the trick. Set your sights on doing something spontaneous and experience a new city, state, sights, smells, or adventures. Better still, take along friends who are not psychology types and who stare blankly when you say "SIOP" or "test validation." Or if a road trip is out of the question, just spend some time shopping, watching sports or TV, drinking coffee, or going to the movies with those nonpsychology friends of yours. They will keep you

grounded and show you that I-O is just one part of your life. And hey, you can't study all the time. In fact, we just learned that even "experts" could only maintain deliberate, concentrated practice in their area for a maximum of 4 hours a day; how's that for empirical data supporting break time! Besides, we all know that distributed practice is more effective than massed for retention. Put your books down during your hours-long reading sessions from time to time, and give your brain an opportunity to process and absorb what you've inputted. And finally, in maintaining your perspective, remember one of the major tenets of psychology—individual differences. Every grad students has his or her own unique circumstances, intentions, motivations, and goals. So don't even try to keep up with the Joneses; grad school is not one-size-fits-all (i.e., no standard measurement unit). Forget what the Joneses are doing and customize your own path. Only you know what your limitations and priorities are. Let those drive your choices and don't feel guilty about it!

Those are all of our *TIP*s for balancing life and graduate school. We hope they have helped some of you. And don't worry if you haven't mastered the balancing thing yet; none of us really have, but we'll all keep on trying. To contact the ***TIP*-TOPics** columnists: Kim Hoffman (khoffma2@luna.cas.usf.edu) or Tom King (TkingV@cs.com), or by fax: (813) 974-4617. Mail: 4202 E. Fowler Ave., Department of Psychology, BEH 339, Tampa, FL 33620-8200.

The Real World: Thanks for the Memories

Janine Waclawski
PricewaterhouseCoopers, LLP

As the old adage goes, all good things must come to an end. With that said, I would like to thank everyone who has contributed to and/or read this column over the past 3 years. It has been both an honor and a pleasure to have had the opportunity to contribute to *TIP* during my tenure as editor of this column.

One thing that I have learned about myself over the past 30 or so years is that I am not the best person in the world when it comes to achieving what we in psychology call "closure." That is to say, I avoid it more often than not. This column is no exception. Over the past month or so, I have pondered many topics that I thought would be interesting to tackle in my last installment. First, I thought a retrospective covering all of the past issues would be a good idea. Then, I thought a column asking practitioners to pontificate about future trends in the field would be a good idea. After that, I got lost in a plethora of other ideas that seemed even more trite and hackneyed. In the end, due to my inability to provide closure and my analysis of the situation I decided that none of the topics were adequate and all would certainly be presumptuous if not pretentious.

Quite simply, who am I to try to summarize what we know in this field through the paltry lens of what has been covered in this column? Who am I to try to portend what will come next in our field by asking what would certainly be a small and probably unrepresentative sample of practitioners to speculate on the future of I-O—a discipline which will undoubtedly last way beyond my lifetime or that of anyone reading this column. Besides, the real world (or more accurately the events happening in the real world) will go on happening with or without this column.

So instead, attempting to create an artificial sense of closure, and thereby trivializing the contributions of those who have responded to me over the years, I have decided not to tackle a final topic in this column but to simply say thank you and farewell. I think that this is the most meaningful way to end this column. As human beings, offering sincere thanks to and displaying sincere gratitude towards those who support and appreciate us cannot be overvalued.

All in all, I have truly enjoyed editing this column and receiving all of the feedback people have sent me over the years. It's nice to know that one's hard work has been appreciated and that there are kindred spirits out there. With that said and in the immortal words of William Shakespeare, I close this column.

Yet I should kill thee with much cherishing. Good night, good night! Parting is such sweet sorrow. That I shall say good night till it be morrow.

Don't be strangers! You can always contact me at PricewaterhouseCoopers, 300 Atlantic Street, Stamford, CT 06901 or by e-mail at j9151@aol.com.

On the Legal Front

Art Gutman[†]
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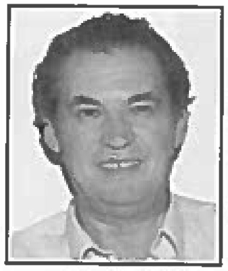

Editor's note: On February 21, as the April issue of *TIP* was going to press, the Supreme Court, in a 5–4 ruling in *Bd of Trustees of the Univ. of Alabama v. Garrett* (No. 99-1240), barred ADA lawsuits against state entities. The Court ruled that Congress exceeded its Section 5, 14th Amendment authority to abrogate 11th Amendment sovereign state immunity in the original ADA statute. This ruling parallels the Supreme Court's ruling last year in *Kimel v. Florida Bd. of Regents* (521 US 507), which barred ADEA lawsuits against state entities (see July, 2000 issue of *TIP*). The Garrett ruling will be discussed in greater detail in this column in the next issue of *TIP*.

Recently, I lectured my class on the role of job analysis in the formation of accurate job descriptions. I was reminded of a series of local workshops I attended in the summer of 1991, in anticipation of the effective date of the ADA (summer 1992). During these workshops, two lawyers told audiences of HR managers that the best defense against an ADA claim is to create vague job descriptions, the logic being that detailed job descriptions are incriminating. One of these lawyers even favored no job descriptions at all. In response to my lecture, one of my students who works for a medium-sized accounting firm told me about a termination decision in which the decision maker had no documentation to support the termination. When asked why there was no documentation, the decision maker responded that years ago, a lawyer had told her that any written record is incriminating. I would assume that we in SIOP would argue for the well-documented job descriptions and for written documentation of incidents that contribute to or are the primary basis for a termination.

For reasons to be discussed below, it was the Casey Martin case (*Martin v. PGA Tour, 2000*) that reminded me about these aforementioned workshops. At first blush, I thought this case was simply about golf. Being an avid golfer and occasional participant in the annual hunt for the Hugo Cup,[1] I followed the case with much personal but little professional interest. Casey Martin suffers from Klippel-Trenaunay-Weber Syndrome in his right leg, severely restricting his ability to walk a golf course. Martin won the right in the lower courts to ride a golf cart during PGA and Nike® Tour events wherein historically there has always been a "walking rule" for all competitors. The Supreme Court has heard oral arguments in this case and will rule probably by June 2001. My purpose below is to isolate some issues I think may concern us, even though our primary interest in life is the workplace, not the fun-place.

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1 For those who do not know and/or who could care less, the battle for the Hugo Cup is an annual SIOP pre-conference event in which a good time is generally had by all.

Handicapping the Casey Martin Case

If we analyzed the "job" of golfer, the emphasis would likely be on shot making, while walking would not likely emerge as an "essential job function." After all, many recreational golfers ride carts, and carts are permitted in some of the events conducted by the Professional Golf Association (PGA) (e.g., the Senior Tour). Indeed, during early qualification rounds for a "Tour Card" (to play on the PGA and Nike® Tours), all golfers are permitted to ride a cart. Therefore, what Casey Martin successfully challenged in the lower courts was the selective application of the "walking rule" to some PGA events but not others. There are two key issues in this case: whether (a) Title I or Title III of the ADA is the applicable statute; and (b) cart riding is a reasonable accommodation or a fundamental alteration of the golf competitions in question. A third issue of potential importance is, given that cart riding is reasonable, is it an "undue burden" (or hardship) on the PGA to determine who should and should not ride?

Casey Martin Is Not Alone

To begin with, there is a parallel case (*Olinger v. USGA, 2000*) which, thus far, has received little press. Ford Olinger suffers from bilateral avascular necrosis, a degenerative disease that severely restricts his ability to walk. Olinger sued the United States Golf Association (USGA) challenging its "walking rule" as it applies to a single annual event; the United States Open golf championship. Martin's case involves dozens of other events conducted by the PGA throughout the year. In *Olinger*, the district court and the 7th Circuit ruled for the USGA, whereas in *Martin*, the district court and the 9th Circuit ruled against the PGA. Can both of these rulings be correct?

Both Casey Martin and Ford Olinger sued under Title I and Title III of the ADA. In *Martin*, the 9th Circuit ruled that Title I does not apply, affirming the district court's ruling that Casey Martin is an *independent contractor*, not an employee, and that Title I applies to employees only. The 7th Circuit ruled similarly in the *Olinger*.[2] The major disagreement in these two rulings is on the second issue; the 7th Circuit ruled that cart riding is a "fundamental alteration" of the U.S. Open, whereas the 9th Circuit ruled it was not for PGA and Nike® Tour events.

Issue 1: Title I or Title III?

In its Supreme Court briefs, the PGA argues that Martin's "claim of discrimination arises under Title I of the Act, or not at all." This sets up a

2 More precisely, the 7th Circuit ruled that Title I does not apply, but did not directly rule on the Title III issue, believing it was irrelevant in view of its ultimate ruling that cart riding does fundamentally alter the U.S. Open competition.

3 The ADA has five titles, including: (I) Employment; (II) Public Services; (III) Public Accommodations and Services Operated by Private Entities; (IV) Telecommunications; and (V) Miscellaneous Provisions. If Titles I or III does not apply, it is difficult to envision how Titles II, IV or V would.

potential "catch 22," since the PGA also argues that the lower courts in this case correctly decided that Title I does not apply. Therefore, in essence, the PGA argues that no statute in the ADA applies to professional golfers on the PGA and Nike® Tours.[3]

In the lower court cases, the PGA argued, based on Title III regulations, that a golf course is a "mixed-use facility" in which different rules apply "outside the ropes" (to spectators) versus "inside the ropes" (to competitors) at PGA events. In rejecting this argument, the 9th Circuit cited several cases involving nonprofessional athletic competitions and ruled that Title III "applies to the playing field, not just the stands."[4] The 9th Circuit also cited *Menkowitz v. Pottstown Memorial Medical Center (1998),* in which the 3rd Circuit ruled that Title III applies to both hospital staff and hospital patient areas, even though there are places within a hospital reserved for doctors and medical staff that for patients and visitors are, in essence, out of bounds.

The PGA countered that cases involving lesser athletic competitions (e.g., college sports and little league) do not apply to PGA events because PGA Tour competition is reserved for an "elite" group of golfers possessing extremely high levels of skill. In rejecting this argument, the 9th Circuit ruled that Title III clearly applies to students at colleges and universities, where the academic competition is also very keen and, particularly at the highest-ranked schools, the students are considered elite.

In its Supreme Court briefs, the PGA counters that the 9th Circuit erred in comparing university students to PGA golfers, arguing instead that the proper comparison for PGA golfers in a university is to teachers, not to students. For example, the PGA states the following:

> *An independent contractor lecturing at a private university, for example, is given among other things, the opportunity to associate with distinguished academics, to meet with students at prearranged times and places, to demonstrate his skills to interested observers, and to gain visibility within his profession, but it would be fanciful to say that, as a consequence, he is properly regarded as a member of the public partaking of goods and services offered by the university. On the contrary, a university lecturer is helping to provide educational services to university students (who are clients and customers of the university) and, while he may receive incidental benefits in addition to payment for his labor, those benefits are truly incidental —that is, they are a direct consequence of, and inseparable from, his agreement to work for the university. He remains in the capacity of a person working for the operator of a place of public accommodation, and his complaints about the terms and conditions established for working there are not cognizable under Title III.*

[4] These cases include *Anderson v. Little League Baseball* (1992); *Bowers v. NCAA* (1999); *Garden v. NCAA* (1996); and *Tatum v. NCAA* (1998).

Of course, this argument completes another "catch 22." Clearly, university teachers, even adjuncts, and even in private institutions, are employees of the university. As such, they are undoubtedly protected by Title I of the ADA. Consequently, the parallel between golfer and teacher suggests that if Martin is not covered by Title III then he must be covered by Title I.

Issue 2: Reasonable Accommodation or Fundamental Alteration?

Adding irony to the aforementioned circularity, in arguably the two most important landmark Supreme Court cases decided under Section 504 of the Rehabilitation Act of 1973, *Southeastern v. Davis (1979)* featured a student, and *School Board v. Arline (1987)* featured a teacher. Frances Davis, who was nearly deaf, demanded "substantial modifications" of a nursing curriculum because she could not, with or without accommodations, complete the program as structured. The Supreme Court ruled the school was not obligated to "fundamentally alter" its program. Gene Arline was fired after a recurrence of tuberculosis because she posed a "significant risk" to the health of others. The Supreme Court ruled Arline could perform the essential functions of her teaching job when not infectious and that the school board was obligated to consider if reasonable accommodations (e.g., sick leave) were possible.

Why is this ironic? Logic dictates that if *Davis* and *Arline* were retried based on ADA law, *Davis* would likely belong to Title III and *Arline* would likely belong to Title I. Therefore, to enhance the case, logic also dictates that lawyers for the PGA should have argued that Casey Martin is in the "student" role, not the "teacher" role. In this way the PGA could further argue for the same reasons that a college or university has the discretion to establish its curriculum, the PGA has the discretion to establish the fundamental rules for its PGA and Nike® Tour events.

Interestingly, the lower courts decided the reasonable accommodation issue on the *Davis* precedent, concluding that cart riding does not fundamentally alter the nature of the PGA and Nike® events. To begin with, the 9th Circuit ruled that walking is not essential because the "central competition in shot-making would be unaffected by Martin's accommodation." Subsequently, in response to the PGA's argument that walking is essential because it adds an element of "fatigue" to PGA and Nike® events, the 9th Circuit affirmed the district court's ruling that Casey Martin is more fatigued while riding a cart than are other competitors who are required to walk.

A central counter argument in the PGA Supreme Court briefs is that the issue of "fatigue" is a *substantive* one that should fall to the discretion of the PGA and not the judgment of the courts. The PGA also argues it enforces this rule uniformly and that it would be an "undue burden" to determine who would be and who would not be eligible for a cart riding exemption.

Why Should This Case Concern Us?

First, one of (many) historical problems with Section 504 of the Rehabilitation Act is that because of its broad brush (i.e., all entities receiving federal funds), it failed to distinguish among such issues such as employment, public accommodation, public services, telecommunication services, and so on. The ADA, with its separate titles, makes these distinctions, and it is important to clearly delineate the lines among these titles.

Second, even within the confines of Section 504 of the Rehabilitation Act, there were key differences in how the Supreme Court decided curriculum issues in *Davis* in comparison to job issues in *Arline*. *Davis* focused on the fundamental nature of college curriculum, whereas *Arline* focused on the essential functions of a job. These two issues seem separable and should remain so.

Third, even within the confines of the *fundamental nature* argument, it would seem that the PGA is defining itself as being beyond the reach of the ADA by arguing it has total discretion over *substantive* issues in tour events. To suggest that such issues are beyond the reach of a court is tantamount to a university arguing it has so much discretion over its curriculum, that it could, in theory, without court intervention, impose on all students a requirement to take physical education courses (and thereby exclude thousands of physically disabled students from academic coursework).

Fourth, the argument that it would be an *undue burden* to force the PGA to decide who qualifies and who does not qualify to ride carts runs against a critical grain of the Rehabilitation Act and the ADA; reasonable accommodation is not a classwide issue, but rather, a decision to be made on a case-by-case basis.

Fifth, if there is a place where the lower courts made a clearly erroneous ruling, it involves the issue of whether Casey Martin in a cart is more fatigued than are other competitors who walk. Such a conclusion appears arbitrary, particularly when there are empirical methods for measuring fatigue.[5]

Finally, the reason why this case reminds me of vague job descriptions is that as a fan of golf since early childhood, I always assumed that professional golfers walked simply because of tradition. Therefore, I wonder whether the "fatigue" argument is a post-lawsuit justification for a rule that has never been clearly articulated. If so, perhaps the lawyers who advocate ambiguity in job descriptions are giving good advice.

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Garden v. NCAA (N.D. Ill, 1996) 1996 WL680000.

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Menkowitz v. Pottstown Memorial Medical Center (CA3 1998) 154 F.3d 113.

Olinger v. USGA (CA 3 2000) 205 F.3d 1001.

Southeastern Community College v. Davis (1979) 442 US 397.

School Board of Nassau County v. Arline (1987) 480 US 273.

Tatum v. NCAA (E.D. Mo 1998) 992 F.Supp 1114.

[5] Also questionable in this case is the district court's ruling that fatigue is primarily mental, not physical.

International Forum: A Review and Future Perspectives

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I began writing this column 4 years ago, shortly after moving to the Université de Nice. My objective was to provide a forum for exchanging information on the work of I-O psychologists around the world. With the help of SIOP members, I sought contributors from various countries who could comment on some of the activities relevant to work in our field. I admit that my approach to identifying people was somewhat haphazard and influenced largely by the individuals whom I could identify, who agreed to contribute, and who were available when I contacted them. Nonetheless, we did manage to represent different areas of the world in these pages. Your feedback has also suggested to me that at least some contacts were made as a result of information presented here.

This will be my final column in this series. To conclude the series, I thought it would be useful to provide a brief overview of the past columns, give an update on the situation in France, and provide some perspectives for the future. Here then is the thematic index of all the columns of **International Forum:**

TIP Issue Topic(s)

April 1997, Introductory Column—My move to the Université de Nice; July 1997, **France** by C. Louche; October 1997, International Association of Applied Psychology by B. Wilpert; January 1998, **Spain** by J. Salgado; April 1998, **Portugal** by S. E. McIntyre; July 1998, **China** by Z. M. Wang; October 1998, **New Zealand** by P. Taylor and M. O'Driscoll; January 1999, **Canada** by L. M. Sulsky; April 1999, **Australia** by B. Hesketh and **Brazil** by A. Tamayo; July 1999, **The Netherlands** by C. K. W. DeDreu; October 1999, **The Philippines** by R. Hechanova-Alampay and E. L. Samonte; January 2000, **The United Kingdom** by C. Smewing; April 2000, **Austria** by K. W. Kallus; July 2000, **Mexico** by F. Díaz Sustaeta; October 2000, **Ecuador** by J. Moreno.

An Update on I-O in France

In my initial column, I commented on my work situation in France and on my research concerning fairness perceptions of hiring methods (see Steiner & Gilliland, in press, for a review). I noted that my interest in this line of research had to do in part with trying to understand the widespread use of graphology in hiring in France. I am happy to say that I have created many disciples among my former students here who, I believe, are having a modest impact on sensitizing organizations to the utility of valid selection techniques.

At the Université de Nice, I think that I-O psychology is doing well. There are now courses in every year of the psychology program at our University. I am director of the applied master's-type program (DESS, Diplôme d'Etudes Supérieures Spécialisées) in human resources management, which has a strong I-O psychology component. I have had several doctoral students here since 1997; however, until the fall of 2000, they had to do their doctoral-related coursework at other universities. Doctoral coursework in I-O was not available at these neighboring universities, so my students took social and cognitive psychology courses. This past fall, our university was granted a doctoral program in psychology, and I now offer I-O coursework in this program.

In his column of July 1997, Professor Claude Louche from the Université de Montpellier wrote of the I-O psychology situation in France in general. In particular, he noted that there was a proposal that had been submitted to the Education Ministry for the creation of a national doctoral program in I-O psychology. Such a national program would have implied the participation of professors from different universities throughout France in the training of a group of I-O psychology doctoral students. This proposal was finally not accepted; doctoral studies continue to be conducted and coordinated at each university's local level.

The I-O psychology network headed by Claude Louche continues to be active. Eleven teams from all over the country meet at an annual conference. The network promotes I-O psychology in organizations, and it initiates research projects. Currently, the members are writing a *Handbook of Work and Organizational Psychology* that is to be in print at the end of 2001. The editors are Eric Brangier, Alain Lancry, and Claude Louche. All these activities make me optimistic about the future growth and impact of I-O psychology in France.

International Perspectives for SIOP

As this is my last column, it seems appropriate to wonder about the future of international perspectives for SIOP. In the January 2001 issue, I solicited your input for ideas about increasing international activities in our society. An international social at the annual Conference was one idea that was presented. At the time of the deadline for this issue, I have received a couple of other suggestions. **Katy M. Mohler**, a student at California State University–Sacramento, suggested that the students of SIOP get more involved in international issues. She suggested compiling a list of links to Web sites concerning I-O type education programs around the world as well as a list of financial aid opportunities for Americans interested in including

some foreign study in their program.

In the October 1997 **International Forum** of *TIP*, Bernhard Wilpert wrote about the activities of the International Association of Applied Psychology (IAAP). **Virginia Schein** asked me to remind members of this organization. She would like to encourage I-O psychologists with an international interest to join the IAAP and the division of Organizational Psychology. She writes:

> The IAAP is the oldest international association of psychologists. Membership in IAAP provides a link to a worldwide network of like-minded colleagues. The Division of Organizational Psychology was its first division and it has the largest membership. The IAAP meets every 4 years and its journal, *Applied Psychology—An International Review*, is an internationally respected forum for scholarly exchange in research findings and reviews. The next IAAP congress will be in Singapore, July 7–12, 2002. A call for papers will be out shortly.

The current president of the Division of Organizational Psychology is Miriam Erez. Virginia Schein is president-elect of the division. Either of them can provide more information about IAAP. The IAAP Web site is www.iaapsy.org and you can join IAAP on line.

Well, that's it for me. So, I'll say au revoir. But I still welcome your comments and suggestions and hope to continue to hear from my North American colleagues. You can contact me at: Département de Psychologie; Pôle Universitaire St. Jean d'Angely; 24, Avenue des Diables Bleus; 06357 Nice Cedex 4; France. E-mail: steiner@unice.fr. Phone: (33) 492-00-11-91. Fax: (33) 492-00-12-97.

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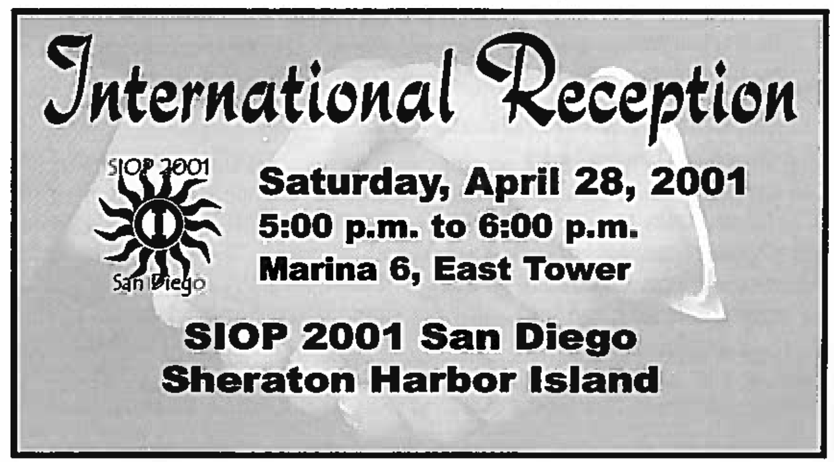

Informed Decisions: Research-Based Practice Notes

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Recently, I, along with **Allan Church**, **Janine Waclawski**, and **Jeff Stanton**, wrote a chapter on the present state of organizational survey research for the forthcoming *Handbook of Research Methods in Industrial and Organizational Psychology*. In writing this chapter, it became apparent that not only is survey research thriving in I-O psychology, but its future appears quite secure given the utility and power of the Internet/Intranet for conducting survey research. Over the past 30 years or so, researchers and practitioners have designed and developed many excellent survey methods and practices. We have also developed and designed some questionable ones as well. In this column, we turn our attention to two survey practices that have become quite banal and yet can be highly deleterious to a survey effort. If you have any comments/questions concerning this column, please contact me at rogelbe@bgnet.bgsu.edu.

Problems and Potential Alternatives to Two Common Survey Reporting Practices: Normative Comparisons and "Percent Favorables"

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In general, applied organizational survey research typically proceeds through five basic stages: (a) identification and documentation of survey purpose and scope; (b) survey item and instrument construction; (c) administration and data collection; (d) data analysis and interpretation; and (e) the reporting of results.[1] Throughout the planning and implementation process, survey researchers and practitioners are often faced with making a host of

[1] From a practitioner perspective there is a critical sixth step to the action research model which involves using the survey results to drive organizational change and improvement. This issue is discussed at length in other sources including Church & Waclawski 2001; Folkman, 1998; Kraut, 1996.

methodological and analytical decisions which can impact the quality and utility of the results obtained. In this column, we review two survey practices that occur in the latter stages of the implementation process which, though very commonly employed, we feel are particularly problematic for a variety of reasons. The two practices to be examined include the use of external benchmarks or normative comparisons and data reporting via "percent favorables."

Although there are many good in-depth in survey texts and "how-to" manuals, few have focused their attention specifically on issues inherent in these two commonly used approaches to data interpretation. In the following sections we will briefly review these two survey practices, express our issues and concerns, and suggest potential alternatives for survey researchers and practitioners.[2]

Practice One: Normative Comparisons

It is fairly common in organizational survey research to see current data compared with some internal or external normative database (often called a benchmark) that contains information on how employees in other organizations, groups, and/or internal units responded to the same set of questions. This comparative process is thought to help individuals interpret and evaluate the observed data against a greater "context" (e.g., "How do we stack up? Are our observed ratings high, low, or average in comparison to others? How do we compare to the best in class in our industry?"). While normative comparisons may play an important role in total quality and business process reengineering efforts, its use is more problematic in applied survey research. This is particularly apparent when organizations focus more on their relative standing vis-à-vis external norms or benchmarks than on their own internal strengths and areas for improvement (Church & Waclawski, 1998).

One significant concern, for example, is the issue of data equivalence, particularly when relying on external comparative data from other organizations. Critics of norming argue that even if two organizations are very similar in their basic composition (e.g., number of employees, type of industry), it is still highly unlikely that they are equivalent across the full range of demographic, geographic, and socioeconomic dimensions (Lees-Haley & Lees-Haley, 1982). As a result, differences between normative databases and observed survey data cannot easily and confidently be attributed to identifiable organizational factors. Thus, interpreting "gaps" between the two databases is suspect. Although "internal" norms (e.g., comparisons within the same organization) do not suffer as much from this problem, in some companies the differences between specific business units, divisions or regions do in fact represent less-than-comparable situations and dynamics as well.

The second major argument against norming concerns is conceptual appropriateness. More specifically, some practitioners have argued that an

[2] For those individuals interested in a more comprehensive treatment of these issues see Rogelberg, Church, Waclawski, & Stanton (in press).

organization should not compare its own observed data to what others firms have obtained, but instead to what is inherently meaningful, important, and plausible (Church & Waclawski, 1998). For example, even if one's ratings are higher than the norm on employee satisfaction, if the scores are low in general there is little point in claiming that area as a strength. After all, dissatisfied employees are still dissatisfied, regardless of whether their dissatisfaction is consistent or not with external benchmarks. Comparative norms do not define reality for the employees who completed the surveys.

Rather than calling for the discontinuation of norming, however, (which seems impractical given its popularity in industry), we point the reader instead to some factors to consider which can impact the validity and utility of such efforts. First, a basic methodological rule in norming practice is to only compare data across organizations when the data have been collected using identical survey items. Despite the apparent obvious nature of this rule, in practice it is frequently ignored under the rubric of inference.

Although necessary, having a set of identical items alone is not sufficient for an appropriate between-organization comparison. When planning to use external norms, comparative analyses should only be conducted when the item context has also been carefully controlled. Item context refers to the placement and order of items found on the organizational survey instrument. Item context can have a significant affect on individual response patterns.

Research by Hyman and Sheatsley (1950), for example, found that affirmative responses in support of freedom of the press for Russian reporters in the United States jumped from 36% to 73% depending on whether the question was prefaced or not with a similar one regarding the appropriateness of American newspaper reporters in Russia. More recently, Strack, Schwarz, and Gschneidinger (1985) asked respondents to describe either three recent positive or three negative life events. Not surprisingly, respondents who were instructed to recall positive events subsequently reported higher happiness and life satisfaction than those who had to recall negative ones. Research by Schwarz, Bless, Strack, Klumpp, Rittenauer-Schatka and Simons, (1991) reported similar context effects with respect to assertiveness. Subjects that were instructed to generate a total 12 different examples rated themselves as having lower assertiveness than subjects who were asked to generate only 6 such examples (Schwarz et al. suggested that the difficulty of generating 12 different examples may have led the participants to believe that they must not be too assertive). Taken together, these and numerous other studies have demonstrated that item order can dramatically influence the survey responses given (see Schuman & Presser, 1996; Schwarz & Hippler, 1995; Tourangeau & Rasinski, 1988).

Clearly, the implications of item-context effects underscore the difficulty of making comparisons across external data even when the item wording itself is identical. The item context must be taken into consideration and held constant prior to the comparison process. Without controlling for or understanding item-context effects we can not reliably interpret "gaps" or "similarities" between a normative data set and an organizational data set. Given these concerns, we recommend practitioners and researchers consider the following recommendations in the survey design process when planning to use their data for normative comparisons. Items should be: (a) grouped together; (b) listed in the same order, (c) presented with the same instructions, and (d) placed as a block at the beginning of the survey prior to customized items not being planned for normative analyses (although subsequent items can still cause context effects, the effect sizes for subsequent item-context effects are much smaller than the item-context effects for preceding questions; Schwarz & Hippler, 1995).

Besides this design solution, however, we would like to offer two alternative norming approaches for researchers and practitioners to consider: (a) *expectation norming* and (b) *goal norming*. In expectation norming, key senior leaders and survey sponsors complete their own copy of the survey instrument based on how they *truly believe their employees will respond.* Actual survey results are then compared to these expectation norms which provide insight into how "in-sync" the key stakeholders are with their employees' perceptions of the organization. Alternatively, in goal norming, the leaders and survey sponsors complete their own version of the survey based on how *they hope employees will respond.* The discrepancies between this ideal state and the actual responses obtained can be used to drive interest, energy, and action planning around the survey results. Regardless of which alternative approach is used, both of these norming methods have the added benefit of increasing investment and interest on the part of the survey sponsors and senior leadership in the outcome of the process prior to the delivery of results themselves.

Practice Two: Percent Favorables

The second major area of survey practice that concerns us is the over-reliance on "percent favorables." Despite the problems associated with this approach, the reality is that reporting survey results in the form of a collapsed set of percentages is one of the most frequently used methods of summarizing data in organizational settings (Church & Waclawski, 1998; Edwards, Thomas, Rosenfeld and Booth-Kewley, 1997; Jones & Bearley, 1995). In practice, this translates to the combination of two or more positive response categories (e.g., adding a 4 = *satisfied* and a 5 = *very satisfied* together on a 5-point satisfaction scale) and labeling that group as being the "favorable" respondents. Typically, the same approach is applied to the lower end of the response scale as well with the bottom two or three categories (e.g., 1 = *very dissatisfied* and 2 = *dissatisfied*) being grouped together to represent the "unfavorable" respondents. While collapsing data is not inherently bad per se, (and is required for certain types of nominal data such as categorical responses and demographic items), the problem is that oftentimes the collapsed data is all that is reported. Thus, rather than presenting a complete distribution of frequencies for all response options on a given

scale, many survey reports only display the findings using this reductionistic approach, which clearly limits both the depth of information and the level interpretability of the findings provided. Moreover, in some survey reports, only one of these categories might be displayed (typically only the percent-favorable component).

While the use of a percent-favorable category clearly makes sense from a simplicity and clarity-of-presentation perspective (Jones & Bearley, 1995), from a methodological and measurement-based mindset this approach is quite problematic. First, by collapsing a 5- or 7-point rating to what is essentially a 3- (or even 1-) point format, one loses considerable information regarding variability. Second, the inherent discrimination made among categories by respondents when completing the survey is entirely lost; the subtleties of response are lost. Third, by collapsing a scale after it has been used, the survey researcher is essentially imposing new psychometric restrictions on the underlying structure of the data that were not present when it was initially gathered. Finally, when the collapsed data are used for additional subgroup analyses (which is quite common in practice), this tends to compound the impact of this reductionistic method.

Aside from the decreased variability and subtlety of the data, and perhaps more importantly for practitioners and survey sponsors, collapsing response ratings can lead to significant misinterpretations of the data. Table 1 provides an example of how the percent-favorable method might obscure data results in a given survey effort.

Table 1: *Different Examples of Percent Favorable*

	Percentage of sample reporting each scale value		
Scale values	*Example one: Middle of the road*	*Example two: Top heavy*	*Example three: Well distributed*
7 very satisfied	10	60	22
6	10	0	18
5	40	0	20
4	20	20	20
3	20	10	8
2	0	5	6
1 very dissatisfied	0	5	6

Clearly, each of these three sample distributions are quite different from one another, yet in each of the examples a 60% favorable score (collapsing the top three response categories) and 20% unfavorable score (collapsing the bottom three response categories) would be identified using this method of reporting. In short, when applied to these data, the percent-favorable method of displaying results would not yield an effective set of targeted interventions or follow-up activities from the survey process. Thus, it is our contention that the percent-favorable approach presented as the sole method of display is generally an inappropriate and potentially unethical (if the researcher were to collapse responses in an attempt to *purposefully* deceive the audience) way of summarizing data.

Of course, there are several alternatives to this method. First and foremost, as applied researchers at heart, we would strongly advocate the use of the mean and standard deviation for survey reporting purposes. Both have useful statistical properties and are simple yet powerful descriptive measures. Plus, the mean and standard deviations are applicable to a wide variety of situations and types of survey items. Although we recognize that there are some inherent problems with the use of these measures as well (e.g., the impact of outliers and/or bimodal or highly skewed response distributions), in general, given the restricted range of standard 5-point or even 7-point rating scales, coupled with the large sample sizes typically associated with most organizational survey efforts, these do not present the same level of concern as noted above with reliance on percent favorables.

Of course, the biggest barrier to using the mean and standard deviation in applied organizational survey work, and probably part of the reason the percentage-favorable method has grown so significantly in practice, is the issue of interpretability. Many practitioners and researchers have found that mean scores and standard deviations are not always readily interpretable by nonstatistically trained individuals (or senior executives in particular). Given these concerns, we offer two potential linear transformations that survey researchers and practitioners might want to consider using to overcome this barrier. Both afford the same level of psychometric robustness (remember that linear transformations do not change the inherent properties of the data) while potentially increasing the ease of understanding among those with low statistics quotients.

The first option is what we call the *Grade Point Transformation.* In this approach, survey data are transformed into a 0–4 scale using the following formula:

$$\frac{(\text{observed score} - \text{minimum-possible scale value}) * 4}{\text{maximum-possible scale value} - \text{minimum-possible scale value}}$$

For a typical 5-point scale then, a rating of 5 would be transformed into a 4.0 GPA, and a mean rating of 4.12 becomes a GPA of 3.12. For a 7-point scale, a mean value of 5.67 becomes a GPA of 3.11, and a mean of 3.70 becomes a GPA of 1.80. This type of transformation could help the survey audience better understand the reported results within a context with which they are very familiar—that is, a grade point average. Given the grading systems typically used in school in the United States, most executives and managers are likely to be familiar and comfortable with assessing and interpreting GPAs. Because of this, the transformed means are likely to have an intuitive appeal that may promote clarity and understanding. For added effect, one could add letter grades to the presentation to serve as scale anchors (particularly given executives' propensity for displaying and "grading" various sources of information in general).

The second alternative to the mean is what we call the *Test Score Transformation.* Here, survey data are converted to a more familiar 0–100 scale. This linear transformation is accomplished as follows:

$$\frac{(\text{observed score} - \text{minimum-possible scale value}) * 100}{\text{maximum-possible scale value} - \text{minimum-possible scale value}}$$

Again, in the case of a standard 5-point scale, a survey rating of 5 would be transformed into a score of 100, while a mean rating of 4.12 becomes a score of 78. For a 7-point scale, a mean value of 5.67 becomes a score of 77.8, and a mean of 3.70 yields a scored value of 45. As with the GPA approach, this transformation presents the survey results in a more familiar context—for example, a test score. Given the prevalence of testing in educational settings and its connotations with "performance," it too represents a familiar and easier interpretable solution for presenting survey findings to those who have difficulty with standard mean scores. Moreover, it can still be reported as a mean (preferably with a standard deviation) without sacrificing clarity or interpretability. Table 2 provides two examples of how the above transformations might be applied to reporting survey findings.

Table 2: *Examples of Linear Transformation Methods*

	Percentage of sample reporting each scale value	
Scale values	*Example one: Very centered*	*Example two: Well distributed*
7 very satisfied	0	40
6	5	25
5	70	10
4	20	10
3	3	5
2	2	5
1 "very dissatisfied"	0	5
Mean score	4.73	5.5
Test score transformation	62.2 out of 100)	75.0 (out of 100)
GPA transformation	2.5 (GPA)	3.0 (GPA)
Percent favorable	75%	75%

In sum, although quite simple, these two transformations may provide the key to helping managers, executives, and other organization members understand, interpret, accept, and ultimately make better use of their organizational survey results. Moreover, since the display adjustment is made after the data have been collected and does not affect analyses, it is virtually transparent to the end users. As a final note, however, it is important to remember to always report standard deviations (whether adjusted or otherwise) when reporting mean scores of any type.

Conclusion

Clearly, the process of reporting organizational survey research results is an important one, and yet it is easily susceptible to obfuscation. As we have tried to demonstrate here, survey researchers need to move away from a reliance on data-collapsing approaches such as the percent favorable, and more into the use of transformed means and standard deviations. In addition, we must be highly sensitive to the pitfalls and methodological impediments to meaningful normative comparisons.

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The High Society: Theory Construction a la Martha Stewart

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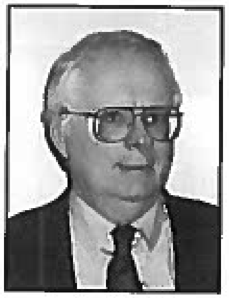

It has been said that the more things change the more they stay the same. Despite advances in our profession over the past 50 years with regard to measurement, our capacity to generate useful theories is stagnant. In fact, the way we arrange our boxes, circles, and arrows today is no better or more advanced than when Truman was president. If you don't believe me, thumb through one of our esteemed journals from around 1950. On the theoretical front, you will quickly and correctly conclude that not much has changed over the past half century. But it's not like we aren't aware of our own ineptitude. It has become *de rigueur* for us to make impassioned pleas for theory development in our field. These are more than isolated pleas, however. In truth, if there is a singular lament that we love to evince it is the plaintive whine for theory construction. The problem is, as Mark Twain once observed with regard to the weather, while we all talk about it, nobody does anything about it. Up until now. A theory is nothing more than a way to think about something. Ms. Stewart and I are kindred spirits because we are both frequent contributors to major publications. We share the same psychic vibes. I envision her giving the following advice on theory construction.... I contacted Ms. Stewart at her home on the windswept craggy coastline of Maine. She graciously consented to give us some of her time and wisdom. Ladies and gentlemen, as a professional service to SIOP as brought to you by *TIP*, **The High Society** offers you theory construction a la Martha Stewart.

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I believe it is always best to start off with the freshest ingredients and to prepare them properly. First, lay out your axioms, postulates, and tenets. Cluster them by type and position them against a suitable contextual gradient. For this I prefer a checkered damask or a striped organdy. Next, slice the corollaries on the diagonal near their epistemological roots. Then spritz them with essence of lavender. However, do not oversaturate the corollaries as their roots have a wicking effect which cause them to bloat, which invariably leads to increased error variance. Parboil the axioms, postulates,

[1] Unamused, indifferent, or entertained readers can write to the author at pmmuchin@uncg.edu.

and tenets until tender, yet still firm. Allow to cool, then carefully trim off any surplus meaning. For this procedure I prefer to use Occam's razor. Now weave the corollaries into a tight pattern using grosgrain twill. However, do not create the appearance of a tussie mussie bouquet. You are now ready to begin the ideation process.

I recommend no more than three constructs per theory. Each construct should be fully trussed. It is advisable to wear latex gloves during this process to avoid possible criterion contamination. Now position each concept to create an inferential etagere. Imbed each concept into its respective construct using either breast darts or freeform pin-tucking. Insert a brochette of postulates into the folded pocket of each concept. Molar concepts can be truncated by selective application of a mandoline grater. However, molecular concepts are best left as is, provided they have first been made parsimonious by placement in a cache pot lightly tousled with Malaysian bay leaves.

It is not always easy to position dependent, intervening, and independent variables. However, your skill will increase with practice. I prefer to secure the independent and dependent variables with a blind hem. Intervening variables can be slippery and evasive. For that reason I solidify their location between the independent and dependent variables using a cable stitch. However, do not use unnecessarily small stitching which will cause the design to pucker. If puckering does occur, do not reposition the variables. Rather, the questionable inferential leaps can be cleverly concealed with rattan detailing. If your variables have scalloped edges, the concealment can be readily accomplished. However, if they have ruffled edges, a toile jabot should be used to produce an apparent seamless integration.

The decision to ideate inductively or deductively can be vexing, but is enhanced by first determining the type of finish your theory should have. If you prefer a crackled-glaze finish, the clear choice is to induce. However, if a café-au-lait finish is preferred, I would deduce. A good theory generates many testable predictions, so liberally sprig the theory with hypotheses. Next, decide if you want an idiographic or nomothetic boucle. Both have timeless charm. If you choose the idiographic, cover it with a swagged duvet for at least 24 hours. If you choose the nomothetic, wrap it tightly in a matelassé, but for no more than 6 to 9 hours, depending on the level of specification error to be tolerated.

By now your theory should start to take form. I have often been asked what to do with those pesky moderator variables. My answer is that if your theory has already included intervening variables, adding moderator variables can only produce a confusing melange. Feel free to accessorize your operational definitions. I've learned you can never have too many of them. If you prefer a more zestful theory, use either a balsamic or meta-analytic teleology. While theory construction is raptuous, you may discover you have created a cognitive montage which greatly surpasses your original intent. In such a case, do not discard the theory! Rather, carefully cleave the theory into a series of discrete models. Use reductionism for this process, but be careful not to fall victim to *reductio ad absurdum*. To achieve the final gestalt, garnish the theory with cream taffeta or sachet of juniper. The product of your efforts will be a fetching addition to metaphysics and will unlikely produce the dreaded null effect.

If you are a relative newcomer to theory construction, do not be dissuaded by a lack of validity generalization. Logical positivism is like the finest ganache—to be savored for but a brief period of time, only to be supplanted by the next quintessence. Theories are but means to an end and have no value in and of themselves. For in truth, the most exquisite artisans do not construct theories, *per se*, but rather are gifted in the creative process. Pity the antediluvian who is known not for sustained virtuosity, but for a singular creation produced long ago that has since become displeasing to the senses and has fallen from social favor! As such, become skilled not in the particular theories you construct but in the art of theorizing.

And that's a good thing.

Early Careers: It's Time for Our Annual Review

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Lori and Dawn holding up the receiving line at Lori's recent wedding

Just over a year ago, we got the idea for a *TIP* column aimed at new I-O professionals, and we wanted to pitch it to **Allan Church**, the editor of *TIP*. We spent weeks preparing our case...libraries, Web sites, conference calls—heck, one of us even practiced the argument on her dog—who incidentally agreed that the column was a good idea. Finally, armed with all sorts of ironclad reasons *why TIP* should allow us to start a column targeting early career types, and prepared to overcome any obstacle thrown in our path, we dialed Allan's number. About 5 minutes into the conversation, he said, "Sounds good. When can you send me your first column?" We were stunned, perhaps even a bit disappointed—we hadn't even begun to tap our admittedly impressive arsenal! Of course, once the shock wore off, we were absolutely thrilled.[1] After receiving the go-ahead, we published our inaugural issue of **Early Careers,** proposing a column with two regular segments: **The Industrial-Organizational Psychologist,** designed to illustrate models of successful I-O careers and provide a "person behind the name" glimpse of the individuals who are shaping our discipline, and **Career Gear,** which offers advice on topics of particular interest to early career folks.

This issue provides a synopsis of what we've learned so far about the people and the topics influencing our future. Yes, it's time for our annual review. But, wait! Before we go any further, you may have noticed something different about this issue—the picture. It was Allan's idea. For his final issue as editor of *TIP*, he asked the regular columnists to include a

[1] We should mention that the preceding anecdote exemplifies just a fraction of the support Allan has offered over the years. For his encouragement, and for providing us the opportunity to work with I-O's finest, we thank Allan from the bottom of our hearts and wish him the best of luck during his final days as *TIP* editor

photo along with their pieces. Luckily, Lori's recent wedding provided just the necessary photo op. Sure, posing for the column photo held up the receiving line a bit; but alas, *TIP* fame and fortune does not come without its price!

As you read on, you'll discover that the picture is not the only thing that's different about this issue. After reviewing past columns, we make good on a promise from a previous edition of **Early Careers.** It has been suggested that in addition to the broad issues described in the **Career Gear** segment, specific examples of effective and ineffective career-related behavior would also be of benefit to new professionals. With this in mind, we have spent the past year gathering critical incidents to share with you. Chances are, you'll be able to relate to at least one of these episodes. If not, you'll at least get a kick out of the blunders the rest of us are making!

The Industrial-Organizational Psychologist

We begin our musings with a special thanks to the four individuals who have been featured in this segment: **Eduardo Salas** who kicked the column (and not his dog) off to an incredible start in January 2000; **Shelly Zedeck**, the former Brooklynite who, though not necessarily comfortable with the lime light, was wonderfully accommodating and gave us great material in April 2000; **Nancy Tippins**, who offered up her office, travel, cellular, and home telephone numbers so that we could accomplish our July 2000 task; and **Kevin Murphy**, who made time to chat with us while in the midst of relocating, starting a new job, and preparing to pick up the kids! Throughout our first year, **The Industrial-Organizational Psychologist** segment has passed along insights regarding both "the professional" and "the personal" sides of these individuals. A few abbreviated highlights follow.

The professional. As professionals, they've been busy! We learned that our featured psychologists are actively involved and assume leadership roles inside and outside the workplace. They have been and still are department chairs, managers and directors, presidents and fellows of SIOP, APA, and APS, and editors or board members of *JAP*, *Personnel Psych*, and SIOP's Professional Practice Series for starters. Adding to the action, all four of these successful psychologists demonstrated the ability to maintain a scientist-practitioner role in our profession, with the practitioners publishing prolifically and the academics offering their insights to industry.

The personal. As persons, we discovered that our featured psychologists are characters (um, we mean they *have* character, yeah, that's it!), as indicated by their various and sundry nicknames, which include but are not limited to Egg Salad, Nan, and Kaz. Our interviews with these intriguing folks have addressed questions regarding stress coping techniques, leisure-time activities, favorite beverages, daily routines, preferred reading material, and advice for early career success. Here's what we learned:

In response to stress, 3 of our 4 featured psychologists generally engaged in some form of physical activity, ranging from cooking and walking the dog—to jogging and racquetball. Leisure time? Well, some of these interviewees admitted that they don't really *have* leisure time, not much anyway. Nevertheless, those few treasured moments are filled with a wide assortment of activities including cultivating herbs, visiting art museums, attending symphonies, shopping, dining out, going to the cinema, supporting youth hockey games, and sitting down with a good book—biographies of sports legends for some, political commentaries, and the classics for others.

Speaking of classics, when asked about their beverage of choice, our featured psychologists responded with some age-old favorites: old fashioned egg creams, rum and Tab (yup, this antiquated cola is still around), wine (which improves with age—it seems the older we get, the more appealing it becomes), and black coffee (the cup-o-coffee tradition is believed to have begun in the early 1400s, with the first coffee houses becoming popularized in Arabia during the mid 15th century).

Although enjoying at least one of these beverages is a daily constant for most of our former featured psychologists, the predictability of the remainder of their daily routines spans the gamut. As we learned, Eduardo is a creature of habit, more so than most it seems. He gets up, runs, goes to work, heads home, refreshes himself with a splash of cologne, reads the mail and newspaper with munchies and a glass of Chardonnay, has dinner, and gets ready for tomorrow. At the other end of the spectrum, due to the nature of his work and his family responsibilities, Kevin's day is structured by only a few guidelines: he finds time every day for his research/writing projects, and he doesn't generally schedule meetings after 3:30 p.m. As for Shelly and Nancy, they fall somewhere in between.

Conversely, we found little deviation in response to our question addressing keys to success. Across the board, we got an initial "Successful? Who me?" kinda reaction. Our featured psychologists were extremely modest in that respect, oftentimes suggesting that *if* people consider them successful, it's due to a mixture of serendipity, strong professional cohorts and colleagues, and being able to do something they love, which allows them to enjoy life. Nancy added that preparation allows one to make use of "luck" when it comes along. This comment complements the themes underlying a variety of other responses: the importance of continuous education; taking advantage of opportunities to learn and grow; and remaining open to projects that broaden your scope of knowledge.

Most of our formerly featured psychologists repeatedly emphasized the impact of colleagues on success, the importance of finding an appropriate mentor, the need to surround yourself with motivated people who complement your skills, and the importance of collaborating and being involved in the field (e.g., professional and industry associations, journals, etc.). Shelly also noted the value of being bold in approaching issues from alternate perspectives. Finally, these four impressive psychologists suggested that it is fundamentally important to "love what you do, and do what you love." This applies not only to your profession, but also to your life outside the office.

Career Gear

Now, as psychologists, we appreciate the importance of modeling. Yet, we urge you to suppress your newfound yearning for egg creams, herbs, cologne, and black coffee for just a few more moments. Our featured psychologists have clued us in on some of the more essential components of early career success. The **Career Gear** segment has touched upon several critical early career topics, exposing some issues that we weren't even aware were issues of which we needed to be aware (phew)! Here's what we mean:

Getting smart. Would you believe it? We finished grad school with flying colors, and the first thing we're told is that we need to get smart...organizationally smart, that is! The January 2000 issue provided a crash course on the importance of developing an understanding of what's going on behind the scenes in your organization. An organizationally smart professional understands the culture, the politics, and the informal rules that shape a workplace and often an early career. The pursuit of organizational intelligence involves a data collection effort that is bound to yield significant results—at least in the context of your career. As our sources advised: Keep your ear to the ground, ask questions, pay attention to informal communication channels (How about a nice refreshing drink from the water cooler?), and figure out as much of the politics as you can. Collect data on the organization's structure, its members, and its history. Such knowledge, which can be acquired from a variety of official and unofficial sources, will improve your chances for success.

From the sidelines. The April 2000 issue considered the in's and out's of "side work." Many new academics strive to supplement their careers with part-time consulting, just as new practitioners have been known to accept classroom gigs and publish in top journals. Indeed, this is the stuff that scientist-practitioners are made of. How can an early career psychologist effectively manage these aspirations? Two pieces of advice emerged. First, wait a while. Whether you're working in a university or an industry, firmly establish yourself in your primary position before taking on extra work. Second, take a resourceful, opportunistic approach. Double up, or "kill multiple birds with one stone." For a consultant, this might mean taking the survey results you presented to a client and turning them into a paper or a conference presentation. For an academic, this could mean initially limiting your field work to projects that are likely to provide publishing opportunities.

Some really general advice. The next leg of our journey was spent in the human resources (HR) department. Apparently, many I-O practitioners are pressured to become HR generalists at some point during their careers.

For the practitioner, such a move often involves more money and power, non–I-O responsibilities, and a significant migration away from our profession. Our sources collectively weighed the pros and cons of such a move and suggested that new psychologists be prepared for the day when the boss calls them in and offers an opportunity to manage a broader or different function. In all likelihood, this decision will have to be made within a very limited time span, so it is important to consider all angles of this issue, many of which are discussed in the July 2000 column.

On balance. Ironically, the most recent **Career Gear** segment emphasized the fact that your career is not the only component of success, nor is it the most important. This discussion was designed to help us all rise above the forces that obstruct work–life–family balance during the beginning of a career. Pearls of wisdom flowed forth from our readers, who believe that balance barriers stem from the workplace (e.g., those who spend all of their time at work are promoted, recognized, and reinforced with far greater frequency than those who choose to have a life outside of the office), and they also pop up on the home front (e.g., kids and/or spouses who don't appreciate your need to work some nontraditional hours). According to our sources, such hurdles can be overcome by adopting balanced "philosophies to live by," including communicating your values and expectations at home and in the workplace, actively working to achieve and maintain that balance, and attempting to put yourself in a family-friendly work environment.

What's an Annual Review Without Behavioral Feedback?

A wise man once said, "Mistakes are the greatest teacher." Maybe so, but who wants to become a Rhodes scholar before their time? We hope that the **Career Gear** advice provided in the previous issues has facilitated a few professional victories, while heading off some nasty slip-ups. Speaking of triumphs and tribulations, we have a few to share. In the inaugural issue of **Early Careers,** we asked you, our faithful readers, to identify job-related achievements or catastrophes, describe the conditions and the problems that you faced, the actions that you took, and the consequences of your behavior. We received some great critical incidents, and it's high time we let the rest of our readers in on them. Sometimes there's nothing so practical as a good specific example of what (not) to do. So pay attention, it could happen to you!

Academic Critical Incidents

No Such Thing as a Free Lunch

Situation: I was new to the university and swamped the day after I unloaded my U-Haul. In addition to my research requirements, the teaching demands were quite heavy, especially because I had only taught one class 3 years prior to my first semester at the university. Time was at a premium.

A week before classes began, I received an invitation to attend a luncheon orientation to the university's technology initiative. On the first day of classes, I was called to the faculty convocation, which was followed by the college of arts and sciences orientation. Next, a new-faculty luncheon hosted by the vice president of academic affairs took place. The following week, I received an invitation to a new-faculty professional development seminar, which occurred the day before my lunch-time benefits and retirement planning workshop.

Action: Although no longer a starving graduate student, I was still in "never-pass-up-a-free-lunch" mode. I attended each of the meetings.

Result: Even though the meetings overlapped with lunch ("hey, you gotta eat," said I, during my rationalization phase), the pre- and post-lunch chatting and presenting extended the meetings well beyond lunch. I got more and more behind in my course preparations, and I had no time for research. I ended up spending many late hours devising lectures for the next morning. My stress level skyrocketed.

What I wish I would've done: I should have listened to **Steffanie Wilk** when she said, "Your time is worth more that than a ham sandwich!" at a SIOP 1999 workshop I attended on "keys to success in academia." Clearly, some of those meetings were necessary but not all of them. I wish I would've gone to a more senior colleague and asked which meeting(s) I needed to attend and which I could have skipped.

We Need to...

Situation: As a new assistant professor, I struggled through the first few weeks of my job. Between the course preparations and the orientations, I was down to 4 hours of sleep per night. Meetings involving the chair and program director invariably resulted in additional responsibilities. "We need to get our course materials online," the chair said during an early faculty meeting. "We need to increase our presence at APA," the program director professed during an area meeting.

Action: Sacrificing large chunks of my time, I put all of my course materials online and cranked out two proposals for the APA conference.

Result: An entire year later, I'm the only one with online materials, and I went to APA alone last summer.

What I wish I would've done: This problem boiled down to my misinterpretation of the phrase "We need to…." I construed this expression as "Let's...," when in fact it meant "Wouldn't it be nice if we...," or "Hey, maybe someday we should...." I soon realized that I need not jump at every suggestion. Some suggestions boil down to wishful thinking or people with nothing better to say.

Journalistic Instincts

Situation: I am a relatively new assistant professor under some serious

publication demands. Because I am a member of a small graduate program, I'm also responsible for supervising multiple master's theses. My goal is to combine my publication and thesis supervision responsibilities. I am constantly thinking up research questions and methods for testing them, yet when it comes time to help a student form a master's thesis topic, I can recall only a fraction of the interesting research designs I previously developed.

Action: I decided to keep an easily accessible journal of research ideas. I tag appropriate ones "master's thesis."

Result: Now, when a graduate student approaches me for guidance on thesis topics, I already have some specifics to offer. This has resulted in several publishable master's thesis projects that are directly tied to my program of research.

Idle Chatter?

Situation: I am a new assistant professor in a school of business. As new professors typically do, I quickly got caught up in a whirlwind of courses, research, committees, and so forth, very shortly after I arrived on the job. The people in my department are quite collegial, and I get along well with my coworkers. There are three secretaries serving the department, and they are considered "part of the family." Soon after I began my job, I learned that the secretaries liked to chat. In fact, every time I went to delegate a task to one of these assistants, I wound up in a 45-minute conversation. I enjoyed the company, but I just didn't have time for it.

Action: I decided to handle my own administrative tasks. For example, I began photocopying and mailing manuscripts myself, rather than delegating these tasks to the secretaries.

Result: In the short run, this go-it-alone stance saved me time. I could photocopy class handouts in a fraction of the time it took to hear about someone's grandchildren. (I know this sounds terrible, but I was really stressed out.) In the long run, my new approach spelled disaster. At my university, there are certain tasks that the secretaries *must* do, and when I needed their assistance, I became a low priority—either because I'd snubbed them or because they didn't really know me, I'm still not sure which. For example, it took one secretary weeks to obtain a purchase order number for a new printer, which I needed desperately. I'm convinced that some of my colleagues could have gotten this number faster, due to their relationships with the assistants.

What I wish I would've done: I probably should have reduced my contact with the secretaries, yet I shouldn't have eliminated it altogether. Perhaps I could have limited my requests to time periods when I wasn't in such a hurry. In all likelihood, the secretaries were on an information-gathering quest, and the chatter would have ceased a bit once we'd had a chance to get to know one another.

A week before classes began, I received an invitation to attend a luncheon orientation to the university's technology initiative. On the first day of classes, I was called to the faculty convocation, which was followed by the college of arts and sciences orientation. Next, a new-faculty luncheon hosted by the vice president of academic affairs took place. The following week, I received an invitation to a new-faculty professional development seminar, which occurred the day before my lunch-time benefits and retirement planning workshop.

Action: Although no longer a starving graduate student, I was still in "never-pass-up-a-free-lunch" mode. I attended each of the meetings.

Result: Even though the meetings overlapped with lunch ("hey, you gotta eat," said I, during my rationalization phase), the pre- and post-lunch chatting and presenting extended the meetings well beyond lunch. I got more and more behind in my course preparations, and I had no time for research. I ended up spending many late hours devising lectures for the next morning. My stress level skyrocketed.

What I wish I would've done: I should have listened to **Steffanie Wilk** when she said, "Your time is worth more that than a ham sandwich!" at a SIOP 1999 workshop I attended on "keys to success in academia." Clearly, some of those meetings were necessary but not all of them. I wish I would've gone to a more senior colleague and asked which meeting(s) I needed to attend and which I could have skipped.

We Need to...

Situation: As a new assistant professor, I struggled through the first few weeks of my job. Between the course preparations and the orientations, I was down to 4 hours of sleep per night. Meetings involving the chair and program director invariably resulted in additional responsibilities. "We need to get our course materials online," the chair said during an early faculty meeting. "We need to increase our presence at APA," the program director professed during an area meeting.

Action: Sacrificing large chunks of my time, I put all of my course materials online and cranked out two proposals for the APA conference.

Result: An entire year later, I'm the only one with online materials, and I went to APA alone last summer.

What I wish I would've done: This problem boiled down to my misinterpretation of the phrase "We need to...." I construed this expression as "Let's...," when in fact it meant "Wouldn't it be nice if we...," or "Hey, maybe someday we should...." I soon realized that I need not jump at every suggestion. Some suggestions boil down to wishful thinking or people with nothing better to say.

Journalistic Instincts

Situation: I am a relatively new assistant professor under some serious

publication demands. Because I am a member of a small graduate program, I'm also responsible for supervising multiple master's theses. My goal is to combine my publication and thesis supervision responsibilities. I am constantly thinking up research questions and methods for testing them, yet when it comes time to help a student form a master's thesis topic, I can recall only a fraction of the interesting research designs I previously developed.

Action: I decided to keep an easily accessible journal of research ideas. I tag appropriate ones "master's thesis."

Result: Now, when a graduate student approaches me for guidance on thesis topics, I already have some specifics to offer. This has resulted in several publishable master's thesis projects that are directly tied to my program of research.

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Costly Contributions

Situation: I'm a fairly new assistant professor, and I rarely have much to say during faculty meetings. I feel that I don't fully understand most of the issues that are discussed, largely because this is my first academic job, and I'm still becoming familiar with the administrative aspects of university education. During my second semester on the job, my department decided to review and revise course catalogue descriptions. The chair of the curriculum committee distributed an e-mail message, requesting changes and revisions. No changes immediately came to mind. Suddenly, I thought "why not change the I-O course title (currently 'Industrial Psychology') to the more modern 'Industrial-Organizational Psychology'?" To be honest, I didn't feel strongly about the issue, but I was becoming self-conscious about my lack of participation during faculty meetings, and I therefore sensed the need to contribute.

Action: I immediately e-mailed the entire faculty, suggesting the name change.

Result: Most of my colleagues were indifferent toward the course title change. I was charged with implementing the modification, which involved mountains of paperwork, a half a dozen signatures, and a lot of time that could've been spent on course preps or research.

What I wish I would've done: In the future, I will refrain from taking stands on issues I don't feel strongly about. In other words, I'll avoid participation for its own sake. Above all else, I will explore the ramifications of a suggestion (e.g., what are the steps in changing a course name, and who is responsible for completing them?) before I chime in.

Applied Critical Incidents

Getting out of the Bored Room

Situation: I'm a practitioner who has been in the workforce for about 2 years. Approximately 6 months ago, I reached a point where I was no longer learning new things at work. Although my project management responsibilities were increasing and I was getting involved in a few new arenas, I was not encountering new experiences at the rate I had before. I was not quite ready to move to a new job and wanted to maximize my learning opportunities with my current employer. I overheard a more senior colleague discussing a situational judgment test (SJT), which she was developing. I had no experience with this type of measure, and I was interested in learning the ropes.

Action: I went to my supervisor and volunteered to assist with the SJT.

Result: My supervisor spoke to my colleague, who agreed to offer me a limited role in the project, which was already well underway. Although my contributions were minimal (mostly editing critical incidents), I gained the opportunity to learn a few new things, and my relationship with my colleague flourished. Moreover (and this is the best part), I was assigned to a similar project a few months later. This time, I joined the team from the beginning, and I played a more critical role in the development of the new instrument, gaining lots of new experience along the way.

Learning to Talk the Talk

Situation: I am a new I-O psychologist working for a consulting firm. One of my first projects required me to develop and administer a survey to approximately 1,500 people. The survey was designed to assess, among other things, employees' reactions to a new benefits package that the organization was considering. Fortunately, I was not working on this project alone; however, I did play a very large role. The survey turned out beautifully, thanks to the excellent training I received during graduate school, and it was time to present the results to the task force of executives who had authorized the project.

Action: I gave a very data-heavy talk, which was very similar to a presentation that you might see at SIOP.

Result: The executive task force was confused. I was mired in statistics, detail, and research, and they wanted to know what my recommendations were and why they should support them. I left the meeting feeling like I hadn't gotten my point across.

What I wish I would've done: I wish I would have learned to speak the corporate language prior to that meeting, and I wish I had developed a better general understanding of the way businesses are run. Perhaps some business courses (e.g., marketing and finance) would have helped.

When Work is Just a Day in the Park

Situation: I was working at a municipality that wanted to test for an employment position at a park. They wanted me to revise their test and have it ready to be administered in one week. The test was antiquated, more of an IQ and psychological test than anything else.

Action: Although this turnaround time initially seemed unreasonable (How could I produce a valid selection test in a week?), I said yes and thought about how to transition from textbook to real-world I-O. I told the personnel director what I thought I could deliver within the week, and what some of the issues might be because of the quick turnaround required. I then observed the job, gathered work samples, designed a test that reflected the job (content and face validity), tested several incumbents, persuaded the personnel director that this test was better than his IQ test (and less discriminatory), then administered it that Friday.

Result: The best feeling in the world was watching people come out of the test saying they thought it was fair and resembled the kind of work the job was all about. The 3 people they hired as a result of the test performed well on the job. This also resulted in the personnel director changing their other tests to be more work related than IQ and psychological-type tests. Plus, it gave me the reputation of being flexible and not so married to traditional test development and validation strategies that I cannot deliver a quality product within the time constraints given.

Mentor Mishap

Situation: A few months after I joined my organization, I learned that it offered an optional mentoring program. None of the new people in my department had ever used it before, yet it seemed like a good idea, as I had been told that it was important for new professionals to gain early knowledge of the lay of the land politically; how to maneuver in the organization; who to support, follow, and avoid because they are a political liability; what the good job assignments are and what training to take; and who the key players and administrative gatekeepers are. Hoping to acquire some of this inside information, I signed up for the mentoring program. I was told to choose a mentor who likes sharing experiences with new high-potential employees.

Action: Well, I knew of just the right person. One of my senior colleagues had a reputation within our department for being a great organizational citizen. Although he hadn't moved quickly through the company ranks, everyone in the department loved him. He was always there to lend a helping hand—heck, he voluntarily trained me to use Excel, after hours, during my first few weeks on the job. I asked the senior colleague to join the mentoring program with me.

Result: The colleague turned out to be a wonderful friend but a poor mentor. Although he was well-loved within the department, he wasn't the quickest person around, and he had no connections outside of the department. I did not gain the political savvy I had hoped for.

What I wish I would've done: Yes, it *is* important to choose a mentor who likes sharing experiences with new high-potential employees. It is, however, also important to choose a mentor who is competent, politically connected, and well-liked in the broader organization. I wish I would have considered this before asking my well-meaning colleague to join the program with me.

If at First You Don't Succeed

So, there you have it—some real-life, real specific tips for success and pitfalls to avoid! For those of you who feel as though you can relate a little *too* well to *too* many of the imperfect incidents above, we offer the words of John Keats:

> Don't be discouraged by a failure. It can be a positive experience. Failure is, in a sense, the highway to success, inasmuch as every discovery of what is false leads us to seek earnestly after what is true, and every fresh experience points out some form of error which we shall afterwards carefully avoid.

For those who find the above quote more irritating than reassuring, we provide something else. The forthcoming issues of this column will introduce a brand new interview question geared toward our feature psychologists. It goes something like this: "Describe a 'dark professional hour' in your early career. What did you do to get through that time?" Hopefully, successful psychologists' responses to this query will remind us early-career folks that the seemingly insurmountable challenges we sometimes face can indeed be overcome and that we may some day be among the likes of those we've come to know as Egg Salad, Shelly, Nan, and Kaz.

Overall Assessment: Substantially Exceeds Expectations

We bring our annual review to a close by concluding that this column's contributors have substantially exceeded our wildest expectations. Along the way, our featured psychologists have taken us from egg creams to extra-dark French roast, from just growing herbs to actually cooking with them, from cologne rituals to crossword puzzles, from symphonies to soccer games, from regular routines to "whatever the day and the mail may bring." We've even been from Brooklyn to the stars (remember Sirius from the July 2000 issue?). We can't wait to see what the next year brings.

Dipboye and dePontbriand (1981) indicate that an effective annual review provides plans and objectives for the future, in addition to evaluations of past performance. We will therefore conclude by letting you in on our intention to feature **Wally Borman** in the July 2001 issue. It's an interview that you definitely won't want to miss! Until then, feel free to contact the **Early Careers** editors with suggestions, questions, kudos, and criticisms at Dawn L. Riddle (riddle@luna.cas.usf.edu) and Lori Foster Thompson (FosterL@mail.ecu.edu).

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Global Vision: The Psychology of Safety

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Mark Griffin


Boris Kabanoff

Safety at work is of immense concern to employees and organizations. Despite the importance of the topic, research into safety has not been well integrated with I-O psychology. Compared to other work outcomes, occupational health and safety issues are often investigated through different research literatures, administered by different management functions, and monitored by different legislative mechanisms. In recent years, a number of research programs have built bridges between the mainstream I-O psychology and the general management of safety (e.g., Hofmann & Morgeson, 1999; Hofmann & Stetzer, 1996; Reason, 1990, 1995).

In this issue we report on five international research programs that are integrating psychological approaches to safety with broader management practices. These programs are characterized by researchers with strong industry links and well-articulated research programs. Below, we describe some of the key people in each program, the types of projects they are conducting, and contact details. The review is not exhaustive; there are many other quality programs around the world. However, the descriptions provide some indication of the depth and diversity of research that is currently increasing the application of I-O psychology to the creation of safer workplaces.

Israel—Technion University of Technology

The first research program is led by **Dov Zohar** at the Technion University of Technology, Israel. Dov has been an influential figure in the psychology of safety, particularly safety climate (Zohar, 1980) for quite some time. He continues to add to the development and understanding of this area (Zohar, 2000). Researchers investigating safety at the Technion come from various disciplines including I-O psychology, human factors, engineering, and medicine. Research projects are often conducted in an interdisciplinary fashion, under the umbrella of the Research Center for Work Safety and Human Engineering.

The research group has conducted work in a variety of industries, spanning from aerospace and chip manufacturing, through metal and chemical processing to the (high-accident) building and agricultural industries. The research also includes some defense industries, as well as army field-units and air force squadrons.

Key I-O research issues addressed by the research include improved measurement of organization and group-level safety climates, group leadership as a factor in occupational safety, modification of supervisory safety practices as a means for improving workgroup safety records, and identification of group-level factors in occupational safety (e.g. coordination, cohesion). The research program has achieved substantial practical outcomes. The work has resulted in the development of better climate assessment tools based on integration of universal and tailored (industry- or mission-specific) components. This ties in with action research on methods for climate improvement, for example using hierarchical feedback concerning managerial and supervisory safety practices.

Future directions and key issues from the I-O perspective include better integration of behavioral safety with recent advances in organizational behavior research. For example, studying the role of leadership factors and the effect of leadership training on safety outcomes, using a broader spectrum of motivation constructs, and adopting a wider view of training in the context of safety research. The researchers can be contacted through Dov Zohar, Faculty of Management, Technion Institute of Technology, Haifa 32000, Israel (e-mail: dzohar@tx.technion.ac.il).

Australia—The University of New South Wales

The second research program is based at the University of New South Wales, Australia. The team includes Michael Quinlan, Phillip Bohle, Claire Mayhew, and Ann Williamson. A key project for the research team examines the effects of precarious employment (temporary workers, contractors, etc.) on safety processes and outcomes in three industries (transport, telecommuting, and hospitality). There is a growing body of international research pointing to serious adverse health effects associated with the increased use of contingent workers and associated organizational restructuring (e.g., Probst & Brubaker, in press). The research aims to identify the extent of these effects, the underlying risk factors, and appropriate organizational and regulatory responses. It is also intended to develop a comparative dimension to the research via collaboration with overseas researchers.

The research team recognizes that there have been significant changes to work organization and employment structures in virtually all industrialized countries and the effects of these changes, including those on safety and health, are likely to prove a key issue for I-O psychology over the next decade. The Australian research team has strong collaborative links with European researchers. Recent work is published in Frick, Jensen, Quinlan, & Wilthagen (2000). Michael Quinlan can be contacted at School of Industrial Relations and Organizational Behaviour, University of New South Wales, Sydney, 2052 (e-mail: m.quinlan@unsw.edu.au).

England—The Institute of Work Psychology, University of Sheffield

The international collaboration based at the Institute of Work Psychology is based on the premise that improvements in occupational safety come

through design, not destiny. Key researchers are Nick Turner from the Institute and Sharon Parker, now located at The Australian Graduate School of Management, The University of New South Wales in Sydney, Australia. Their research, which spans multiple levels of analysis and three continents, focuses on how managers and employers can improve employee safety through work and organizational design.

Their current microlevel research investigates how changes in work organization (e.g., a move from traditionally managed teams to semi-autonomous teamworking) at several Scottish petrochemical sites affect employee safety. The issue of empowerment and safety is controversial in safety-critical industries like petrochemicals. Proponents argue that the benefits of providing employees with greater autonomy and responsibility should carry over to proactive hazard identification, evaluation, and control. However, opponents have argued that decentralizing authority in high-hazard operations hinders an integrated understanding with the potential for a reduction in safety. Parker and Turner are also collaborating with **Julian Barling** (Queen's University, Canada) and other colleagues in the UK on more macro-level safety research. An ongoing study explores the relationship between HRM practices and organizational injury rates using a large sample of UK companies. The next step in this research is to broaden the focus to include relationships between organizational practices, safety performance, and traditional performance measures such as financial performance or productivity. In the last few years, Turner and Parker have brought together safety researchers from around the world and have helped to boost the profile of safety in I-O research by organizing symposia at recent Academy of Management, SIOP, and Australian conferences. The research is also raising questions for further research. For example, one of the assumptions underlying most micro safety research is that concepts such as "safety" or "injury" have stable meanings, although their work with employees and managers across a number of companies contradicts this assumption.

A recent publication of their work (Parker, Axtell, and Turner) is in press. Nick Turner can be contacted at the Institute of Work Psychology, The University of Sheffield, Sheffield, UK, S10 2TN (e-mail: nick.turner@sheffield.ac.uk). Sharon Parker can be contacted at The Australian Graduate School of Management, The University of New South Wales, Sydney, 2052 (e-mail: sharonp@agsm.edu.au).

Scotland—University of Aberdeen

The Industrial Psychology Group at the University of Aberdeen in Scotland specializes in the application of psychology to safety and emergency response in high reliability organizations. The group has conducted research and consultancy with the offshore oil and gas industry since 1986 and also with nuclear power, conventional power, civil aviation, and medicine (anesthetics). The main areas of interest include measuring and managing safety culture and climate, crew resource management, and performance of teams in high-risk domains. They also conduct projects on human factors in accident analysis, benchmarking health and safety management, and decision making in emergencies.

The group is currently implementing a wide range of projects such as the development of a behavioral markers taxonomy for anaesthetists' nontechnical skills and evaluation of a nontechnical skills behavioral marker system (NOTECHS) for European pilots. Much of their work deals with managing decision making in emergency situations. They are currently conducting training for emergency management on nuclear plants, decision making by fireground commanders, prison emergency response teams, crisis management in police officers, and safety on oil platforms.

Group members are Professor **Rhona Flin**, Kathryn Mearns, Peter McGeorge, Kristina Lauche with researchers Rachael Gordon, Margaret Crichton, Paul O'Connor, Georgina Fletcher, Angela O'Dea, and doctoral students Patrick Tissington, Robin Bryden, Steven Yule, Calvin Burns, Anne Sneddon, Bill Rattray, and Majeed Khader. Professor **Eduardo Salas** (University of Central Florida), an honorary professor of the University, is collaborating on the team skills projects.

Clients and research sponsors are Agip, AMEC, Amerada Hess, British Energy, British Petroleum (BP), British Gas, Chevron, Coflexip Stena, Civil Aviation Authority, Conoco, DERA, EC (DGTREN), Elf, Fire Service College, Halliburton, Health and Safety Executive, Kerr McGee, National Power, Phillips, Powergen, Salamis, Schlumberger, Shell, Talisman, Texaco, Total, and UK Nuclear IMC.

Details of the group's current projects and publications can be found on the Internet at www.psyc.abdn.ac.uk/serv02.htm. The group can be contacted through Professor Rhona Flin, Department of Psychology, University of Aberdeen, King's College, Old Aberdeen AB242UB, Scotland. (e-mail: r.flin@abdn.ac.uk).

Germany—Forschungsstelle Systemsicherheit FSS (Research Center Systems Safety)

The FSS, founded in 1990, is part of the Division of Work and Organizational Psychology of the Berlin University of Technology. It is directed by Professor Bernhard Wilpert. FSS focuses its research on the role of Human Factors in safety and reliability of organizations with high hazard potential.

The research focus in the past years was directed towards the conditions for high hazard organizations to learn from their operational experience. In the pursuit of this objective, FSS developed an incident analysis methodology "Safety through Organizational Learning SOL" to be used in nuclear industry. SOL is based on socio-technical systems thinking and psychological theories of the genesis of incidents (accidents, near-misses). It facilitates the systematic retrospective analysis of systems breakdowns in using a problem-solving approach instead of the received checklist or fault-tree approaches. The methodology has been tested experimentally and in practice realms (nuclear power plants, chemical

plants, civil aviation), is easy to use by practitioners (e.g., nuclear plant staff), economical and effective. Its modules enable systematic incident reports for incident data bases or regulators. SOL is now available in different languages as a computer-assisted version which offers heuristics for corrective actions. It has been adopted by nuclear plants.

Further FSS research covers the analysis of safety culture in an East European nuclear plant, a European consortium research on organizational factors and nuclear safety. A recent extension of the research scope concerns the application of the methodology to operation theatres and intensive care units.

FSS research is always conducted in interdisciplinary fashion through a worldwide net of cooperating research institutions. Its work is funded by German governmental agencies, the European Union, the Berlin University of Technology, and industry. Two recent examples of their work are Falbruch and Wilpert (1999) and Wilpert and Falbruch (1998). Professor Wilpert can be contacted at the Institute of Psychology, Berlin University of Technology, Franklinstr, 28, FR 3-8, D-10587 Berlin, Germany (e-mail: bernhard.wilpert@tu-berlin.de).

Conclusion

The five research programs provide a brief glimpse of the active work being undertaken to integrate safety management with broader management issues in organizations. The programs cover a wide range of issues and all of them integrate I-O psychology with wider systemic issues concerning safety. Each program has clear practical application and also suggests rich lines of enquiry for further research.

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Traveling in Cyberspace: Computer Security

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Blaine Burnham[1]
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In this column we discuss a subject with which most of us are probably not too concerned, but certainly should be. That subject is computer security. For most, computer security is not something you think about until something has gone terribly awry. As we will discuss there are very real and serious reasons as to why all of us, anyone using the computer to store confidential, sensitive, personal, or otherwise important information, should care about computer security. We will also describe several methods of making sure that your confidential files remain confidential, they remain available to you, and their integrity remains intact.

Below we describe common vulnerabilities that could put your information at risk. The length of this column precludes discussing every vulnerability; however, we have chosen some of the more common ones. For each of these, we provide a nontechnical description of the vulnerability and potential solutions to protect you. We have provided several extra references for users seeking more information on computer security.

Why Computer Security is Important

We are rapidly moving into an age in which everything of value and relevance will be either found in computers or dependent upon information found in computers. Today, the vast majority of money in the world is not expressed as currency but rather in some digital format, namely, bits and bytes.

Health and privacy information, business and real estate transactions are all now digital or are moving that way. The foundations of our lives and how we live our lives is becoming dependent—not just linked—to computers. This dependence cannot and must not be treated as casual and dismissible relationships of only passing interest. The information/computer technology we use today is far too fragile for the burden we are entrusting it to.

[1] Dr. Blaine Burnham is director of the Nebraska University of Computer Information Assurance. Dr. Burnham comes to UNO from Georgia Tech University, where he served as the Principal Research Scientist in the College of Computing and as the Director of Georgia Tech Information Security Center. He most recently served as program manager for the National Security Agency (NSA) at Ft. Meade, Maryland. While at NSA Dr. Burnham established, promoted and sustained the Information Security Research Council for the Department of Defense as well as the intelligence community as a whole.

It is incumbent on each of us to understand what is happening, ask tough questions, and demand sensible answers. Without this involvement, our journey into cyberspace will be fraught with extreme danger.

Physical Security

Before we talk about *computer* security we have to start with its precursor, *physical* security. After all, all of the computer security in the world doesn't do much good if you copy sensitive documents onto floppy disk and then leave them in a place where unauthorized personnel can access them. Especially in public work places where cubicles are common, it is very easy for anyone to walk by and pocket a handful of floppy disks or CD-ROMs. Even floppy disks can hold intellectual property worth millions or billions of dollars. (How much would a company pay for the engineering schematics for a new computer chip, or a cure for HIV?) The simple solution is that all media containing sensitive information be kept in locked drawers behind locked doors. Or, if you are in a situation in which physical security cannot be guaranteed through lock and key, then it is essential that any sensitive information be encrypted. Encryption—explained in more detail later—scrambles information to make it unreadable. The only person who can decrypt the information, making it readable, is the person holding the "key" necessary for decryption.

Dumpster Diving

What do you do with copies of old, confidential, or sensitive documents? Shred them? Probably not. Most people dump old documents, receipts, bank statements, and so forth, in the trash—or if they are environmentally conscious—put them in the recycle bin. Hackers[2] know this and take advantage of it through the time-honored practice of "dumpster diving." Dumpster diving involves hackers waiting till the trash is deposited in dumpsters outside a building, and then physically jumping to see what they can find. There are horror stories of hackers finding everything from usernames and passwords written on little sticky notes, all the way to important technical specifications and business communication and technical documents, the latter of which were used to break into computers at major telecommunications companies (Littman, 1997) .

An illegal practice becoming more common is identity theft. Each year, more than 500,000 Americans fall victim to identity theft, and that number is rising

[2] In the public press the term "hacker" has taken on a pejorative meaning, often attributed to malicious idiots who like to break in and vandalize computers and Web pages. In the computer realm, the term hacker was first used for someone who had a love of gaining knowledge, typically through figuring out the technical details of technology such as phones and computers. We are using the term hacker here to mean the "black hat" hacker, whose primary goal is to conduct illegal computer activities. Contrast this with the "white hat" hacker, whose primary goal is a deep-seated interest in understanding how computers and technology works.

(Newman, 2000). If someone can determine key pieces of information about you, such as your social security number, bank account numbers, credit card numbers, and so forth, they can pretend to be you, get access to your bank account, credit cards, and who knows what else. The best way to thwart identify theft is prevention: Shred all documents containing potentially sensitive information PRIOR to recycling or tossing in the trash.

Deleting a File Really Doesn't...

Did you know that when you delete a file on a hard disk or floppy that the information itself is not deleted. Did you know that a deleted file could be easily "undeleted?" Which means that if you have recently deleted some sensitive information from a disk, and you give that disk to someone else, they have the capability of retrieving that information and reading it, printing it, saving it, selling it, posting it to the Internet, and using it to their heart's content. The reason is that when you delete a file, you are only deleting a "pointer" to that information; you are not deleting the actual information itself. Deleting the pointer tells the operating system that it can write over the space occupied by that information. Drawing an analogy to a book, you could ostensibly "delete" a book chapter from a book by deleting its title and page information from the table of contents. Someone browsing the table of contents wouldn't know that the chapter existed; however, the actual book chapter would still remain intact. (The deleted information is irretrievable if later the operating system saves another file over the space once occupied by the deleted file).

There are several solutions to this problem. One is to never share floppy disks that have stored sensitive information. A second and fairly simple solution is to use a "wipe" utility for any sensitive information that you delete. A wipe utility not only deletes the pointer to the file, it also writes random sequences of bits (0's and 1's) over the actual content of the deleted file. This procedure essentially "wipes" all of the information from the disk, making it essentially unreadable. (This is what the military does to wipe sensitive information from magnetic media.) There are numerous free wipe utilities that can be found on the Internet, and in some consumer applications (such as Norton Utilities at www.symantec.com).

Viruses and Worms

Undoubtedly, the most well known attacks on computer security come from computer viruses. Estimates put the number of existing virus at anywhere from 10,000 to 60,000, depending upon how you count them (Schneier, 2000). In simple terms[3] a computer virus is a piece of computer code that attaches itself to (i.e., infects) existing computer programs. When

[3] I'm using the term virus very liberally here to include other software-related infections such as computer "Trojan horses," "logic bombs," and so forth. The reader is referred to the reference section to learn more about these computer infections.

the "infected" programs run, the virus itself is executed. Typically there are two consequences of the virus being executed. First, the virus propagates by attaching itself to other programs. Second, in some circumstances it delivers a payload, which may or may not cause damage to the host computer (described below). Most viruses travel from computer to computer when users share an infected floppy disk or when a user sends an infected file as an e-mail attachment.

A cousin of the computer virus is the worm. A computer worm, unlike a virus, is not persistent. For example, if a worm is present on your computer it will be memory resident, that is, only found in RAM, not attached to a file on your floppy or hard drive. Shutting off the computer flushes the RAM, meaning no more worm. However, the virus is persistent given that they infect actual files on the floppy or hard drive, neither of which is affected by shutting down the computer.

The destructive capability of a virus is measured in terms of the virus's "payload." Think of a payload as the action that will be performed by the virus when it is executed. Some viruses have no harmful payload. These viruses may replicate, infecting floppy disks and hard drives, but do no real harm like deleting or modifying files. The more destructive viruses can obliterate all information on any magnetic media (hard or floppy drives). For example, the Michelangelo virus overwrites part of the user's hard disk. The Win95/CH virus wipes out megabytes of information on the hard disk *and* makes it such that the computer cannot be booted, even from a floppy (Denning, 1999).

Some of the newer forms of virus, called macro viruses, have the potential to infect many, many more computer users in a very short period of time, primarily because they propagate primarily over the Internet using e-mail. A macro is an invisible script, or set of commands or actions, that can be included as part of a regular document, such as a word processing or spreadsheet document. Most macros are created to assist users in completing a task efficiently. However, hackers now use macros to propagate viruses. When a user opens a seemingly innocent document, the macro virus executes, delivering its payload.

The most infamous macro virus is ILOVEYOU. It has been estimated that the ILOVEYOU macro virus infected 10 million computers and caused millions of dollars in damage (Schneier, 2000). The ILOVEYOU macro virus is sent unwittingly via e-mail by an infected computer host, arriving as e-mail with the subject line "I Love You" and an attachment with the name: Love-Letter-For-You.txt.vbs. The ILOVEYOU virus is a good example of social engineering (described below).[4] What person would NOT be

[4] The .vbs on the end of the e-mail attachment means it's a Visual Basic scripting file, namely, a macro, which can execute commands on your computer. Interestingly, the second bit of social engineering is the use of the ".txt" in the name of the file. A .txt extension is used to indicate a text file, which gives many users a false sense of security, because text files cannot execute, and are therefore harmless. However, the file is actually a Visual Basic script, which CAN be executed.

intrigued by such a message and want to open the file of someone who purports to love them? Unfortunately, opening the attachment executes the macro virus, resulting in two consequences. First, if the user has the very popular Microsoft Outlook (a personal information manager) on his/her computer, the virus propagates itself by e-mailing itself to everyone in the user's Outlook address book. (How many people are in YOUR computer address book?!) Second, the virus corrupts files that end with .vbs, .vbe, .js, .css, .wsh, .sct, .hta, .jpg, .jpeg, .mp2, .mp3 by overwriting them with a copy of itself, essentially destroying this information (Vamosi, 2000).

Fortunately, with some care, you can greatly reduce your chances of becoming infected. First, get good antiviral software. For example, Norton Antivirus (www.symantec.com) and McAfee Antivirus (www.mcafee.com) are two well-known and very good antiviral applications. Once you install the software, make sure you enable the "autoprotect" function. Autoprotect is a function that starts when your computer is booted, and runs until you shut it down, working like an inoculation. While running it will attempt to detect any virus that may try to infect your system. You should also make sure you scan your system for viruses at least once a week (a process which can be automated to run while you are away from your computer). A virus scanner—the heart of antiviral software—works by looking for various virus "signatures" on your computer. If it finds a virus signature it will attempt to quarantine the virus, making sure that it cannot infect any other programs.

It is critical that you update your virus signatures because more and more viruses are being written every day. If the antiviral software doesn't have the most up-to-date signatures, it may completely miss a virus. (Most antiviral programs allow you to update virus signatures over the Internet.) Finally, we would suggest that you never, ever open any e-mail attachment from someone you don't know. It is very easy to hide viruses in e-mail attachments, and opening an infected attachment executes its payload.

Social Engineering

Kevin Mitnik, the most infamous hacker in history, said that 98% of his computer break-ins were facilitated through "social engineering." Social engineering attacks the weakest link of the security chain, the human user. Social engineering involves getting information from people by nontechnical means, typically by lying, manipulating, or pretending to be someone to be trusted. How effective is social engineering?

> In 1994, a French hacker named Anthony Zboralski called the FBI office in Washington, pretending to be an FBI representative working at the U.S. embassy in Paris. He persuaded the person at the other end of the phone to explain how to connect to the FBI's phone-conferencing system. Then he ran up a $250,000 phone bill in 7 months." (Schneier, 1996, p. 266)

If the FBI is vulnerable to social engineering, chances are you are too. Hackers use social engineering to obtain critical information because it is much easier than gaining the same information through technical means, such as exploiting a vulnerability in computer software, which could take a lot of time, energy, and resources (Winkler, 1997). Why do something the hard way when you can manipulate someone into just *giving* you the information in a fraction of the time?

Here's an illustration of how a hacker would accomplish a piece of social engineering. Say Harry Hacker wants access to Company X's computer network. Since he doesn't have valid access he decides to carry out some social engineering on a Company X employee, Ted Smith. Harry Hacker would call Ted Smith on the phone, and pretend to be from Company X's tech support department. The scenario would go something like this.

> *Hacker*: "Hello, Ted? Hi, I'm Fielding Mellish, I'm a new technician in tech support. We're having some trouble with the e-mail in your department. We have had lots of complaints that e-mail is not getting through, so I'm checking and fixing everyone's account. I need to get into your account to make sure that the problem gets fixed, and you can get all of your e-mail. I just need your username and password..."
>
> *Ted*: "Gee, I'm not supposed to do that. Who did you say you were again?"
>
> *Hacker*: "Look Ted, I don't mean to be nasty, but I've got 50 other employee's accounts I have to fix by the end of the day, and I can't do THEIRS until I get YOURS fixed. If you don't want me to fix your account, fine. But I'll let your boss AND your coworkers know that you were the cause of the holdup!"
>
> *Ted*: "O.K., I'm sorry, I didn't realize it was that serious. My username is 'tsmith,' and my password is 'Nancy'." (His daughter's name).
>
> *Hacker*: "Thanks very much, Ted, I'll let the VP know how cooperative you were. I should have your account fixed in 5 minutes. Thanks again… Bye."

A minute of work and the hacker has all the information needed to insinuate himself into the network. Once the hacker has access to a user's account, he (or she) can exploit known vulnerabilities in the software to gain access to the Holy Grail of access—"root." Root access simply means the user has the same access privileges as the network administrator; that is, the person in charge of the network. That level of access allows a user to modify, move, or even delete crucial files. Simply put, they can play "god" with the network, costing individuals, organizations, or governments millions, and conceivably, billions of dollars.

Social engineering works because it is natural for people to want to be helpful. And of course, when they aren't, the hackers can use intimidation, as demonstrated in the scenario above. The key to remember is that no technician or network administrator need ask for your password over the phone or over e-mail. If someone with whom you are unfamiliar asks for such information, decline and call your network administrator, immediately. After all, network administrators are already the god of the network, and they have the ability to get and/or change your password. There are plenty of other ruses that hackers can use, so also beware of the following: (a) if someone you don't know asks you to change your password to a specific word, don't do it; and (b) don't send your password over e-mail or any other electronic means unless the transmission is encrypted (scrambled).

General Problems with Passwords

Usernames and passwords are used to identify and "authenticate" users. Authentication means to determine whether the person purporting to be the user is actually who they say they are. Many computer accounts require some degree of confidentially, and therefore, authentication through usernames and passwords is ubiquitous.[5] Unfortunately, many user accounts are vulnerable to password guessing. This vulnerability is really not the fault of the user, but rather an innate human limitation of remembering a bunch of meaningless and forever changing information. Who can remember passwords for your work computer, your home computer, your Web-based mail, your ISP, your Amazon.com and My Yahoo! accounts, all of your credit card PIN numbers, and more?

Because there is so much to remember, the typical user will do one of two things. First, make his or her password(s) very simple and/or personal, and therefore more memorable. Because they are simple and personal they are easily guessable with a little background work by the hacker. For example, there are plenty of stories of users that use "password" as their password, or their own name, their spouse's or child's name, or such simple combinations as "abc," "1234," and so forth. Very easy to remember means very easy to guess. A good hacker will do plenty of intelligence work prior to an attack and will in all likelihood know important personal information on the user (spouse, children's, and pet's name, etc.). All they have to do is spend 5 or 10 minutes running through all of these alternatives before they hit the jackpot.

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[5] If you think that keeping your password confidential is not important because you don't store any "sensitive" information on your computer, then imagine a hacker breaking into your computer and then doing any of the following: (a) sending nasty notes to your boss, or the president of the United States; (b) downloading pornographic files to your computer (or e-mailing them to your boss from your account!); (c) attempting to break into military computers from your computer; and so forth. The list could go on and on. The bottom line is, there are innumerable important reasons to keep your password confidential.

Even if you do create a password that is not easily guessable, it still might be vulnerable to a hacker through something called a "dictionary attack" (Schwartau, 1996). Here's an illustration of a dictionary attack. On most computer systems your user name and password are encrypted and then stored on the computer in an authentication (password) file so that if a hacker breaks into the computer they cannot read this sensitive information.[6] To illustrate an encryption scheme, here is one of the first encryption algorithms, attributed to Julius Caesar.

Original alphabet:	abcdefghijklmnopqrstuvwxyz
Encrypted alphabet:	defghijklmnopqrstuvwxyzabc

The "Caesar cipher" simply takes the original letter and substitutes the third letter following.[7] For example, "a" becomes "d," "b" becomes "e," and so on. Once we get to the end of the alphabet, "x" wraps back around to the beginning of the alphabet as "a," "y" is "b," and "z" is "c."

To illustrate the dictionary attack, say we have the following username and password for an account.

Username:	mikecoovert
Password:	buckeye

Using the Caesar cipher described above, the encrypted username and password would be:

Username:	plnhfrryhuw
Password:	exfnhbh

The authentication file would contain the combination "plnhfrryhuw exfnhbh," the encrypted username and password for Mike Coovert. However, if a hacker can break into the network and gain access to this authentication file, he or she can use a dictionary attack to discern the passwords. A dictionary attack uses password-cracking software to compare the encrypted passwords with a dictionary of encrypted words. When the software finds a match, the password has been cracked. To illustrate, the hacker would compare "exfnhbh" (the password from the authentication file) to all the encrypted dictionary words, such as:

buck	exfn
buckeroo	exfnhurr
buckeye	exfnhbh

(GOT IT! The password is "buckeye")

---

[6] Unless the hacker can decrypt the information—that is, translate it back into its original format.

[7] This is a super simple example of an encryption scheme for illustrative purposes only. Today's most advanced encryption schemes are highly technical, mathematically based, and unbreakable.

With a fast computer, it would take only a few minutes to crack the encrypted password. (Statistically, in the long run it would only have to look at half the entries before a match is found).

The best way to defeat dictionary attacks is to use passwords that are NOT in the dictionary. For example, the only way the password "wooga" could be cracked is through either exhaustive search—that is, trying every conceivable combination of letters until that combination is found—or through social engineering. Clearly, the use of nondictionary words make the hacker's job much more difficult, and we strongly suggest that you use this technique to thwart password cracking. Also make sure that your password is fairly long, seven characters or more, and contains punctuation, numbers, and a combination of upper and lower case letters ("7wOOga!"). Doing so exponentially increases the difficulty of password cracking.

Committing Your Passwords to Paper...

Many users write their passwords on, say, a sticky note, placing the note on the computer, or a desk drawer for easy reference. This practice is more common than you might think. There are very educated folks with whom I work who do this. Hackers *know* that users do this. All a hacker has to do is to walk by an office or cubicle and quickly glance around to see if there are any passwords for "harvesting." Actually, this practice of using external memory aids such as sticky notes is not such a bad idea as long as the memory aids remain confidential and within the control of the user. Thus, it is perfectly acceptable to put the sticky note in your purse or wallet, or in a locked file cabinet (or anywhere else that physical security can be provided).

Biometrics

One promising way of user authentication that would bypass the archaic username and password combination is biometrics. Biometrics refers to measures of physical and/or biological characteristics of users as a means of identifying and authenticating a user. Biometrics is promising for a few reasons. First, there are many characteristics that can be used for authentication that are unique to each individual. Second, users don't have to remember anything (No more passwords!). Third, users always have the means of authentication with them. The most common biometric is the fingerprint. Other biometric characteristics include voice and face recognition. One of the more promising metrics is iris patterns, which have over 260 unique identifiers, compared to 35 for the fingerprint (Denning, 1999). Unfortunately, currently the cost of biometric hardware and software precludes their use in common everyday tasks; however, as biometrics become a more popular means of authentication, and the U.S. Army Biometric Program continues its research, the costs will invariably come down in price.

Connecting from Home

More and more computer users have dedicated Internet connections at home. Dedicated, or "always-on" connections mean that the computer always has a live connection to the Internet. For example, DSL (digital subscriber lines) and cable modems provide fast, always-on connections. Contrast this with the more common 56K modems where the user has to dial in to the ISP (Internet service provider) each time he or she wishes to access the Internet. The problem with these always-on connections is that they are much more vulnerable to being attacked by a hacker.

Without getting too technical, hackers can employ special software that performs various automated scans and attacks on dedicated Internet connections. These connections give hackers more time to be able to determine the computer's Internet address (IP address), the operating system it is running, and many more tidbits that can be used for an attack. In fact, it was reported that the recent hacker attack at Microsoft was accomplished through some clever social engineering and then breaking into Microsoft through the Microsoft employee's always-on connection at home (Howell, 2000).

There are several solutions to this problem. First, you can turn off your connection when you are not using it, although this doesn't solve the problem completely because you are vulnerable when you are connected and working online. Second, you can install a personal firewall on your computer. A firewall is software that acts as a boundary between your computer and the Internet. A firewall keeps intruders out by acting as a "perimeter defense," similar to a castle wall (Schneier, 2000). If someone tries to hack into your computer, the firewall, when installed and set properly, will allow legitimate communications through, while disallowing suspicious activities. We strongly suggest that if you do connect to the Internet from home, that you install a firewall, most of which are fairly inexpensive (less than $100) or free (e.g., http://www.zonelabs.com).

Cryptography

If you keep a lot of important information on your computer, you should consider cryptography as a solution to ensuring confidentiality and integrity of that information (Pfleeger, 1997; Schneier, 1996). Encryption protects information by scrambling it using a secret key. Unscrambling the encrypted message, a process called decryption, requires a key. Some messages that are sent across networks and the Internet are encrypted transparently, that is, so that it is not obvious to users. A good example of this is in e-commerce applications, which automatically encrypt information you send.

Cryptography is one of the key means providing information security for governments and organizations. In fact, up until last year the U.S. Government felt that encryption was so vital to the security of our nation that they classified strong encryption methods as a *munition* and limited its export to any foreign countries.

There are numerous cryptography schemes that are currently in use and widely available. One of the more popular is called PGP, for Pretty Good Privacy, available from MIT (Zimmerman, 1999; http://web.mit.edu/network/pgp.html). The Windows version of PGP comes with a very attractive user interface making it fairly easy to use. It also works with Microsoft Outlook so that the user can encrypt outgoing and decrypt incoming mail messages.

Final Thoughts

Backup your data, and do it frequently. I learned this lesson a LONG time ago. If you ever have any problems with a virus overwriting part of your hard drive, it's a simple matter of restoring your backups. There is plenty of software that makes this a painless task. Plus, with Zip drives (holding 100 to 250 MB) and CD-R (allowing users to read and write to CDs, 670 MB worth!) coming down dramatically in price, it makes very good sense to back up your data (at the least) and even your entire hard drive.

We hope this column makes you think about the computer security vulnerabilities you might face, and made you more aware of the potential disasters that you might avert. The reference section includes various computer and information security readings which range from the not technical to the very technical.

A Personal Note

I (Philip) have enjoyed writing this column for the last 6 years. I'd like to thank my friend **Michael Coovert** (the previous *TIP* editor) and **Allan Church**, the current editor, for all of the help they have provided to me. I'd also like to thank my former and frequent co-author, Jason Weiss, for all of his help. (Jason recently received his PhD, married a lovely lady, got a dog, moved to Pittsburgh, and in general, got on with the real world. He is truly missed). Finally, I'd like to thank all the readers who have given me encouragement throughout the years. To all my readers, best of luck in your computing endeavors, and happy surfing.

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Announcing New SIOP Members

Beth Chung
Cornell University

Irene Sasaki
Dow Chemical

The Membership Committee welcomes the following new Members, Associate Members, and Foreign Affiliates to SIOP. We encourage members to send a welcome e-mail to them to begin their SIOP network. Here is the list of new members as of February 15, 2001.

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Welcome to all of the new SIOP members.

Secretary's Report

Janet Barnes-Farrell

The Winter meeting of the SIOP Executive Committee and committee chairs was held on January 20 and 21, 2001 in Houston, TX. Highlights of decisions and topics of discussion at the meeting follow.

1. The revised version of the APA Ethics Code will be in the February edition of the *APA Monitor*, along with instructions for making comments. A response will be provided on behalf of the Society; members who are interested are also encouraged to respond as individuals.

2. The outcome of the APA apportionment ballot was a loss of one seat for Division 14. Thus we will only have one APA representative slot on the ballot this spring.

3. **Gary Carter** has been appointed to an APA Task Force on Psychology in the Workplace. **Lois Tetrick** has been appointed as a liaison to the APA Presidential Initiative on Health Care and Policy: Psychology Builds a Healthy World: Healthy Workplaces, Healthy Families, Healthy Communities. Please send information about people who are working on issues of health in the workplace to Dr. Tetrick (ltetrick@uh.edu).

4. **Heather Fox** facilitated a discussion of ways that SIOP can collaborate with APS to increase I-O representation in various APS outlets. In response to interest from APS, the Executive Committee authorized the appointment of a chair-in-training who will become chair for I-O programming at the APS conference. In discussion of other ways that we can increase our visibility in APS and APA, **Paul Thayer** suggested that members consider preparing brief articles on our areas of expertise (2,000 words) and submit them to Alan Kazdin, editor of the APS journal *Current Directions in Psychological Science*. These articles have the potential to have impact in Introductory Psychology classes. Similarly, SIOP members were encouraged to forward story ideas to Gary Carter (Visibility) who is in touch with Sarah Martin at the APA *Monitor*.

5. A motion for the Society to endorse the Decade of Behavior was approved. Ways to participate in the Decade of Behavior will be explored.

6. Revision of the *Principles for the Validation and Use of Personnel Selection Procedures* is currently underway. When a draft revision is ready, it will be made available to any SIOP member who requests a copy.

5. A "buddy program" aimed at new members is being developed by the Membership Committee. The objective is to help new members learn about SIOP and to provide a source of early career advice.

6. The Executive Committee approved a recommendation to change the name of Foreign Affiliate to International Affiliate. This will require an amendment to the bylaws.

7. The Consultant Locator System, currently being piloted, is expected to be fully operational by April.

8. The JobNet online placement service went operational on December 11. Response to date has been excellent, particularly from employers.

9. **Mort McPhail** and **Mickey Quiñones** described the ongoing work of the Licensing Task Force, which is charged with defining the meaning of a licensable I-O psychologist.

10. The *Graduate Training Programs in I-O Psychology and Related fields* continues to be amazingly popular. It is maintained and presented online and updates are entered on an ongoing basis. There are now 196 programs listed.

11. **Talya Bauer** reported that a total of 430 reviewers participated in reviewing over 800 submissions for the SIOP Conference program; approximately 500 proposals were accepted. All of our overflow hotels for the Conference are now full. SIOP will run buses to outlying overflow hotels. The Society will continue to contract for small blocks of rooms in area hotels; they will be posted on the Web as soon as we contract with them.

12. **Nancy Tippins** and **Bill Macey** led a discussion on reactions to increased commercialization at the SIOP Conference. There was general agreement that we need to explicitly communicate the scientific and educational purposes of the Conference and encourage presenters to respect that. A variety of strategies for dealing with the problem were identified, and a number of specific suggestions were generated for the Program Committee and the Continuing Education & Workshops Committee to consider.

If you have questions or comments, I encourage you to contact me directly by e-mail at Janet.Barnes-Farrell@uconn.edu or by phone (860) 486-5929.

SIOP Placement Services Keep Growing

Linda Sawin
The Boeing Company

This past December we implemented JobNet, an electronic placement service accessed through the SIOP Web site. JobNet, available year-round, makes a substantial addition to the placement services already offered by the society, which include the Conference Placement Center and job advertisements in *TIP*. This new service offers job seeker subscribers the option of placing a resume in a password-protected database that can be accessed only by employer subscribers.

For job seekers, a subscription enables them to enter their resume in the resume database and to update that resume throughout the 3-month subscription time. By doing this, a job seeker greatly increases the opportunity to find a position. Employers who are subscribers to JobNet are able to access the resume database and to identify job seekers who appear to be a match for their opening. In fact, employers may register for JobNet and never post a position opening. Rather, they may choose to examine the resume database for potential employees. Having a resume in the database will increase the job seeker's chances of finding a position. Both SIOP members and nonmembers may subscribe to JobNet. Nonmember subscription fees are higher than those for members, however.

Employers will find many improvements over our previous services. Among these improvements are options for subscribing for 3, 6, or 12 months and for advertising one or multiple jobs. JobNet allows employers to enter their own position descriptions. In addition, those employers with the multiple position subscription can enter additional jobs when the jobs become available. Employers no longer have to take out a new ad each time they have a new position. A subscription also enables employers to access the resume database, giving them the opportunity to identify prospective employees without waiting for the job seeker to contact them. In addition, employers do not have to post a position opening to subscribe. By not advertising a position, employers who do not want to be inundated with resumes and yet need to fill an opening, have the ability to see who is available.

The service is Internet-based and accessed through the SIOP Web site. Subscriptions may be paid online using a credit card or by telephone, fax, or U.S. mail. Once payment has been made, the subscriber is given a user ID and a password. Subscribers then enter their resumes or job descriptions online.

As part of entering a resume, job seekers are asked to supply specific information such as the highest degree awarded, major area studied, years of experience, area of job interest (applied, academic, internship), area of expertise, and availability. All of this information is provided using pull-down menus. Following this, subscribers enter their resumes. The subscriber may make changes to the resume throughout the subscription period.

A similar procedure is followed when entering a job description. The employer is first asked to supply information including the company's Web page address (optional), the desired degree level and experience levels, area of job interest and area of expertise, start date, and position title.

Some things have not changed with the addition of JobNet. Position descriptions are still available for viewing at no charge on the SIOP Web site. However, they are now accessed through JobNet. Go to the SIOP home page, click on JobNet and then click on "positions available." We will continue to advertise position openings in *TIP*. The Conference Placement Center will continue to be an integral part of the placement services we offer our members at the annual Conference. JobNet and the Placement Center are separate services. If you have subscribed to JobNet and want to use the Conference Job Placement Center, you need to register for that service as well.

We plan to continue to improve the placement services offered to our members. Please send me suggestions and ideas for improvements. I can be reached at linda.l.sawin@boeing.com.

Preserving SIOP's History

Laura L. Koppes, SIOP Historian
Eastern Kentucky University

In 1996, the SIOP Executive Committee established the position of historian, and the SIOP History Committee was created to assist in the documentation and preservation of SIOP's history. Current members are **Jennifer Irwin**, **Andrew Vinchur**, and **Pete Dominick**. We are in the beginning stages of several projects (e.g., history exhibit, oral histories, SIOP photo archive) and welcome any additional assistance! If you have any photos you would like to donate, please send them to the SIOP Administrative Office.

The SIOP Executive Committee selected the Archives of the History of American Psychology (AHAP) at the University of Akron as the official repository for SIOP documents. All SIOP officers and committee chairs are requested (per the SIOP Administrative Manual) to save and submit materials pertaining to the business of SIOP. The materials are sent to the SIOP Administrative Office for storage until the historian prepares them for the archives. At that point, the materials are delivered to AHAP, a highly regarded repository which holds both individual and organizational collections for preserving the history of American psychology. Information about the archives can be found at their Web site, www.uakron.edu/ahap. The facility is designed for researchers to access the materials with the assistance of the archivists. Some SIOP materials are also stored at the Library of Congress at lcweb.loc.gov.

The SIOP historian's role was created to preserve the history of SIOP and I offer my assistance to individuals wanting to document I-O psychology. Please contact me if you would like information about available resources. If you have an interest in the history of psychology, I strongly encourage you to join APA Division 26: History of Psychology. You do not need to be an APA member. A membership benefit is a subscription to the recently established scholarly journal entitled *History of Psychology*. Membership information can be obtained from the Web site, www.psych.yorku.ca/orgs/apa26/ member.htm.

I may be contacted at Eastern Kentucky University, Department of Psychology, 521 Lancaster Avenue, Richmond, KY 40475, 859-622-1564, Laura.Koppes@eku.edu.

Related Web Sites

American Psychological Association—www.apa.org/
American Psychological Society —www.psychologicalscience.org/
Cheiron: The International Society for the History of Behavioral and Social Sciences—www.psych.yorku.ca/orgs/cheiron/
History and Philosophy of Psychology Web Resources—www.psych.yorku.ca/orgs/resource.htm
History of Science Society—depts.washington.edu/hssexec/
Society of American Archivists—www.archivists.org

International Affairs Subcommittee Needs Your Input

Bev Dugan
HumRRO

The goals of the International Affairs Subcommittee of SIOP's Professional Practice Committee are to identify the issues that psychologists need to consider when expanding the use of their products and services to other countries. The outcome of this effort will be an International Practice Guide that will include the following:

- Basic information about cross-cultural differences
- Types of cross-cultural work performed by I-O psychologists
- Challenges encountered in cross-cultural work and effective strategies for dealing with the challenges
- Sources of information for cross-cultural issues
- Identification of research needed to help practitioners address cross-cultural issues

Subcommittee members include **Bev Dugan** (chair), **Rabi Bhagat, Kingsley C. Ejiogu, Monica Hemingway, Katherine Holt, Bob Ramos,** and **Jim Sharf**.

The International Subcommittee has developed an interview protocol and begun interviews with SIOP members who are working in the international arena. Based on the information gathered during the interviews, survey questions will be prepared for inclusion in the SIOP 2001 Member Survey. If you have been consulting internationally and are willing to participate in a short interview, please contact Bev Dugan at (703) 706-5681, or at bdugan@humrro.org.

Introducing the SIOP Small Grant Program

David A. Hofmann
Michigan State University

With the assistance of the SIOP Foundation, SIOP is pleased to introduce the Small Grant Program. The purpose of the Small Grant Program is to

- Provide tangible support from SIOP to its members for research-related activities.
- Help guide research activities in areas of interest to both practitioners and academicians within SIOP.
- Foster cooperation between academicians and practitioners by supporting research that has the potential to advance both knowledge and practice in applied areas of interest to all members of SIOP.

For 2001, the SIOP Foundation has agreed to award $7,500 to this program in order to fund three grants of $2,500 each. A subcommittee has been created to review and administer the Small Grant Program. Given the specific objective of fostering cooperation between academicians and practitioners, this subcommittee consists of both academicians and practitioners.

General Procedures and Policies

The overarching goal of the Small Grant Program is to provide funding for research investigating topics of interest to both academicians and practitioners. Thus, it is strongly encouraged that grant proposals consist of a *cooperative effort between academics and practitioners*. In addition, the principal investigator of the project must be a SIOP member or Student Affiliate. Proposals submitted with a Student Affiliate as the principal investigator should include a letter of endorsement from a SIOP member, preferably the student's academic advisor. In order to ensure that there is a clear commitment of the organizational partner to the research, a letter recognizing this support is required.

In order to encourage wide participation and a large variety of individuals and institutions involved in the program, an individual can only be involved in one proposal per review cycle. Although this is the first time these grants have been available, our intent in the future will be to encourage submissions from individuals and institutions who have not received funding from this program in the past. In addition, individuals in the future will be prevented from receiving an award if they were granted an award within the previous 2 years.

Guidelines for Proposal Budgets

It is the explicit policy of the SIOP Small Grant Program that grant funds *may not* be used for overhead or indirect costs. In the committee's experience, most universities will waive overhead and indirect costs under two circumstances: (a) the grant is relatively modest in size (e.g., $2,500), and/or (b) the awarding institution (i.e., SIOP) does not allow it. If the above statement disallowing funds to be used for overhead is insufficient, the chair of the Small Grant Subcommittee will provide additional documentation and evidence explicitly recognizing this policy.

The SIOP Small Grant award can be used in conjunction with other funding for a larger scale project. If this is the case, the proposal should describe the scope of the entire project, the entire budget, and the portion of the budget for which SIOP award money will be spent.

Size of the Awards. Awards will be for $2,500.

Criteria for Selecting Award Winners

Each grant proposal will be reviewed by both academic and practitioner members of the subcommittee. The following criteria will be used to evaluate each proposal:

Significance: Does the proposal address an important problem relevant to both the academic and practitioner membership of SIOP? Will the proposal advance knowledge *and* practice in a given area?

Appropriateness of budget: Is there clear justification and rationale for the expenditure of the award monies? Can the proposed work be accomplished with the funds requested or is there evidence that additional expenses will be covered by other sources of funding?

Research approach: An assessment of the overall quality of the conceptual framework, design, methods, and planned analyses.

Innovation: Does the proposed research employ novel concepts, approaches or methods? Does the proposal research have original and innovative aims?

Aimed at a wide audience: The proposal should be clear, understandable, and communicable to a wide audience and have implications for **all** members of SIOP (academics and practitioners).

Realistic Timeframe: Likelihood that the project can be completed within one year of award date.

Deliverables

All grant award recipients will be required to deliver a final report to the SIOP Small Grant Subcommittee and the SIOP Foundation Committee within one year of the date of the award. Awardees should be aware that a synopsis of their research will be placed on the SIOP Web site. This synopsis will be of such a nature so as not to preclude subsequent publication of the research. It is strongly encouraged that the results of the research be submitted for presentation at the annual SIOP Conference.

Topic Areas of interest

In future administrations of the SIOP Small Grant Program the subcommittee will develop and disseminate a list of specific topic areas of primary interest. This list does not preclude the submission of proposals in other topic areas as long as they are of interest to both academicians and practitioners.

For the first administration of the Small Grant Program the subcommittee has decided to leave the topic area open. Thus, any and all topics are welcome as long as they are consistent with the objectives listed above.

Format of the Proposal

The proposal should adhere to accepted formatting guidelines (e.g., APA guidelines) and should include the following sections:

1. Abstract
2. Literature review and rationale for the project
3. Method—including information about the sample, measures, data collection strategies, analytical strategies, and so forth.
4. Implications for both academicians and practitioners
5. Budget and justification for expenditures of the award

The proposals should not exceed *10 pages* of text (not including references, tables, appendices). The proposal should be double-spaced and use a 12-point font and one-inch margins.

All awarded authors will need to certify, by signature or other means, that the research will be carried out in compliance with ethical standards with regard to the treatment of human subjects (e.g., institutional review board, or signed statement that the research adhered to the accepted professional standards regarding the treatment of human subjects).

Submission Deadlines and Procedure

Potential recipients should submit **8 copies** of the research proposal by **June 15, 2001** to the the SIOP Small Grant Program, SIOP Administrative Office, 520 Ordway Avenue, Bowling Green, OH 43402.

Please direct all questions regarding the Small Grant Program to David A. Hofmann, Department of Management, Michigan State University, East Lansing, MI 48824, (517) 432-3518, e-mail: dhofmann@msu.edu.

Small Grant Program Submission Cover Sheet

1. Project Title: ______________________________

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2. Names, addresses, contact information (e-mail, phone, fax) of all investigators:

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3. Submission Checklist:

___ Proposal does not exceed 10 pages of text (excluding references, tables, appendices)

___ If Student Affiliate is principal investigator, did you include a letter of endorsement from a SIOP member?

___ Does the budget clearly describe how the $2,500 award will be spent?

___ Have you included 8 copies of the proposal?

Please submit your proposal to the
SIOP Administrative Office by
June 15, 2001.

SIOP Small Grant Program
SIOP Administrative Office
520 Ordway Avenue
Bowling Green OH 43402

National Academy Reviewing Scientific Evidence for Polygraphs

Dianne Brown Maranto
APA Science Directorate

The National Academy of Sciences (NAS) has begun an 18-month study, funded by the Department of Energy (DOE), to review the scientific evidence for the reliability and validity of the polygraph. The Panel to Review the Scientific Evidence on the Polygraph met for the first time January 26 to plan the study. In January 2000, the DOE implemented a new policy requiring polygraph exams to screen employees and contractors who have access to sensitive or classified information about the design or production of nuclear weapons. Prompted by Congress on the heels of the Wen Ho Lee case, the policy could have led to thousands of DOE employees and contractors being subjected to polygraph tests. However, the Department scaled down its implementation, limiting the number of polygraph tests to approximately 800 annually.

Even reducing the numbers, the new policy was met with considerable resistance from DOE employees and scientists who question the validity of the polygraph in detecting deception. At the urging of Senate Democrats, DOE is now investing almost $1 million to evaluate the scientific evidence for the polygraph. The Senate Armed Services Committee held a hearing on DOE Security issues February 8. Secretary of Energy Spencer Abraham (former Republican senator of Michigan) testified, noting the tension between the Department's need to attract and retain top-notch scientists and the need to screen this population for security purposes.

This is not the first time the polygraph test has come under public and scientific scrutiny. In 1988 Congress passed the Employee Polygraph Protection Act, prohibiting private sector employers from using the polygraph on employees or prospective employees. The federal government was exempted, particularly in cases of national defense and security. The Department of Defense, Department of Energy, Federal Bureau of Investigations, and Central Intelligence Agency use the polygraph in criminal investigations, counterintelligence cases, and foreign intelligence.

Psychologists testifying before the Congress in 1988 expressed caution against relying on the polygraph to detect deception. Their compelling testimony about the polygraph's poor reliability and validity ultimately led APA's Council to adopt a position of "great reservation about the use of polygraph tests to detect deception." The Office of Technology Assessment (OTA) published a report in 1983 concluding that, "while there is some evidence for the validity of polygraph testing as an adjunct to criminal investigations, there is very little research or scientific evidence to establish polygraph test validity in screening situations...." The same year, the Department of Defense produced a research summary attesting to the usefulness of the polygraph in criminal justice and counterintelligence operations.

The current NAS study plans to include an analysis of the effect of medications, sleep deprivation, and illness on the physiological responses measured. They also plan to examine the use of the polygraph with other measures. Psychologists are apt to be heavy contributors to the NAS study. Several psychologists have been appointed to the Panel, including John Cacioppo, PhD, James Blascovich, PhD, Richard Davison, PhD, and Paul Ekman, PhD. Furthermore, the study director will be soliciting scientific information from scientists conducting research in this area.

If you need information that is relevant to the study, you can contact the NAS study director, Paul Stern, at pstern@nas.edu. For more information on NAS's study, check out their Web page at http://www.nas.edu/ and search under current projects. This panel is housed under NAS's Division on Behavioral and Social Sciences and Education.

Decade of Behavior 2000 Officially Launched at Capitol Hill Event

In a setting reminiscent of the pomp and grandeur of times past, a group of politicians, policy makers, interested citizens, and scientists joined in a high-tech celebration this September on Capitol Hill. The occasion was the formal launch of the Decade of Behavior, a multidisciplinary initiative highlighting how behavioral and social science research will help address the challenges facing our society.

The sense of a new era of cooperation and communication between science and the public, and between science and policy, was echoed in remarks made to celebrate the opening. Rep. David Price (D-NC) read a congratulatory letter from President Bill Clinton commending the efforts of the Decade of Behavior initiative. The congressman then commented:

> There is a lot going on... in the social sciences, and it has a tremendous potential for human betterment, to contribute to good public policy and to enlightened attitudes on the part of our citizenry.... By understanding behavior, we hope that we can improve human behavior and that society will benefit.

This call was repeated by Rep. Brian Baird (D-WA), who said:

> What this Decade of Behavior is about is... taking the information that you develop in your research... clinical work... applied work... consulting, and bringing it to the governmental process, to inform governmental decision making. That's what is so exciting about the Decade of Behavior. I personally believe that if we can apply what we have learned in the behavioral sciences...we can save this nation billions of dollars over the coming decade, if we apply ourselves well, if we do good research, and if we apply that research to public policy...we'll have performed a great service to this great country.

It was not hard to be infected with a sense of optimism about the potential of behavioral and social sciences to meet this challenge. Thirteen research exhibits, presented in engaging and interactive displays, showcased leading behavioral and social scientists whose research addresses each of the five major themes of the initiative: improving health, increasing safety, improving education, increasing prosperity, and promoting democracy.

Now that the launch event is past history, the Decade begins its work in earnest. This includes a public education campaign about the relevance of behavioral and social science research findings, programs to increase collaboration across the behavioral and social sciences, and efforts to translate research findings into the public policy arena.

Many projects and events are planned over the next several years. For more information about the Decade of Behavior, log onto www.decadeofbehavior.org.

SIOP Members in the News

Clif Boutelle
SIOP Media Consultant

SIOP members continue to be sought out by reporters and writers to add expert commentary to news stories. How does the media learn about SIOP members and the specialized knowledge they can add to workplace stories? There are a variety of ways. For example, one is Media Resources, which can be found on the SIOP Web site by clicking on "Media." Over 450 SIOP members, along with their areas of expertise, are listed in Media Resources. And we are in the process of informing reporters about this useful Web site.

Another way to expand the visibility of I-O psychology is ProfNet, a media referral service currently being subscribed to by SIOP. The Administrative Office in Bowling Green, Ohio is monitoring media requests for workplace-related stories and then working to match SIOP members with reporters' needs. Many SIOP members have established their own contacts with the media as credible sources and are often called upon to comment on stories. Together, these activities provide greater visibility for SIOP and its members.

Some SIOP members who have contributed to recent media reports include:

Mitchell Marks, a mergers and transitions consultant in San Francisco, who was asked to comment about the human side of mergers for a January 16th *Wall Street Journal* article entitled "Mergers Often Trigger Anxiety, Lower Morale." He was also interviewed by the BBC World News report for a story on employee behavior in the workplace.

Virginia Schein, a professor in the management department at Gettysburg College, appeared on Essential Talk Network in Canada for a 30-minute live discussion on office romances.

Workforce magazine called upon **Linda Sawin**, manager of assessment at The Boeing Company's human resources department, for her thoughts regarding preemployment testing.

For an article about using psychological testing for top jobs in the February 5 issue of *Fortune* magazine, **Kevin Murphy**, a professor of psychology at the University of Pennsylvania and a former SIOP president, estimated that "Traditional job interviews are only about 65% accurate in judging an applicant's potential strengths and leadership style. Adding testing and other psychological tools can raise accuracy to 85%," he said.

In the same *Fortune* story, **Ben Dowell**, vice president of Bristol-Myers' Center for Leadership Development, talked about his company's experience using testing as a way to boost retention rates.

In its February issue, HR Magazine tapped David Arnold of Reid Psychological Systems in Chicago, acting as general counsel for the Association of Test Publishers, for an extensive letter to the editor discussing various issues surrounding pre-employment testing.

HR Magazine tapped **David Arnold**, general counsel and vice president of Reid Psychological Systems in Chicago, for his comments about research on interview scheduling preferences for a January article.

For an article on how applicants evaluate a company, HRZone, a Web site devoted to workplace issues, cited a research project in the fast food industry, which relies greatly on teens and retirees for staffing, describing how the teens and retirees determined which fast food restaurants were best for employment. The research was done by **Scott Highhouse** and **Michael Zickar**, both professors in the psychology department at Bowling Green State University, **Todd Thorsteinson** of the University of Idaho, and **Jerel Slaughter** of Louisiana State University. Their colleague, Sandra Stierwalt also participated in the study.

Bernardo M. Ferdman, professor and program director of organizational psychology programs at Alliant University in San Diego, conducted a live interview about workplace violence on "Esta Mañana," a nationwide radio program broadcast on the Telemundo Network.

Let us know when you or a SIOP colleague are quoted in or are the subject of a news story. We will include those mentions in future **SIOP Members in the News**. You can pass along copies of articles where SIOP members are featured, quoted, or mentioned to the SIOP Administrative Office at 520 Ordway Avenue, P.O. Box 87, Bowling Green, OH 43402, or tell us about them by e-mailing Lhakel@siop.bgsu.edu or fax to (419) 352-2645.

EEOC Applies ADA to Genetic Screening Case

Dianne Brown Maranto
APA Science Directorate

On February 9th the U.S. Equal Employment Opportunity Commission (EEOC) filed a petition to prevent Burlington Northern Santa Fe Railroad from using employee blood tests to identify genetic defects. EEOC alleges that the railroad is using genetic testing on employees who have filed claims for work-related injuries (particularly carpal tunnel syndrome), and is doing so without their consent or knowledge. By filing its suit under the Americans with Disabilities Act (ADA), EEOC is essentially testing whether or not genetic information is covered under the law.

Senators Daschle (D-SD) and Kennedy (D-Mass.), and Representative Slaughter (D-NY) are expected soon to introduce legislation banning employment and insurance discrimination on the basis of genetic information. Similar legislation was introduced in the 106th Congress last year, but did not move in that legislative session. There are currently 23 states that have passed laws prohibiting discrimination based on genetic information, including Iowa, where EEOC has filed its suit.

See October 2000 *TIP* article page 154 for more background on this issue.

Call for Nominations and Entries

2002 Awards for the Society for Industrial and Organizational Psychology

Timothy A. Judge, Chair
SIOP Awards Committee

NOTE THE NEW DEADLINE FOR RECEIPT OF NOMINATIONS

JUNE 1, 2001!

Distinguished Professional Contributions Award

Distinguished Scientific Contributions Award

Distinguished Service Contributions Award

Ernest J. McCormick Award for Distinguished Early Career Contributions

S. Rains Wallace Dissertation Award

William A. Owens Scholarly Achievement Award

M. Scott Myers Award for Applied Research in the Workplace

DEADLINE FOR RECEIPT OF NOMINATIONS: JUNE 1, 2001!

Send nominations and entries for all awards to:

Timothy A. Judge, Chair
SIOP Awards Committee
SIOP Administrative Office
520 Ordway Avenue
Box 87
Bowling Green, OH 43402

Nomination Guidelines and Criteria

Distinguished Professional Contributions,
Distinguished Scientific Contributions,
Distinguished Service Contributions,
and the Ernest J. McCormick Early
Career Contributions Awards

1. Nominations may be submitted by any member of SIOP, the American Psychological Association, the American Psychological Society, or by any person who is sponsored by a member of one of these organizations.

2. Only members of SIOP may be nominated for the award.

3. A current vita of the nominee should accompany the letter of nomination. In addition, the nominator should include materials that illustrate the contributions of the nominee. Supporting letters may be included as part of the nomination packet. The number of supporting letters for any given nomination should be between a minimum of three and a maximum of five.

4. Nominees who are nonrecipients of the Distinguished Scientific Contributions Award, Distinguished Professional Contributions Award, and Distinguished Service Contributions Award will be reconsidered annually for 2 years after their initial nomination.

5. Eight copies of all submission materials are required. Letters of nomination, vita, and all supporting letters (including at least three and no more than five) or materials must be received by **June 1, 2001**.

Administrative Procedures

1. The SIOP Awards Committee will review the letters of nomination and all supporting materials of all nominees and make a recommendation concerning one or more nominees to the SIOP Executive Committee. Two or more nominees may be selected if their contributions are similarly distinguished.

2. The Executive Committee may either endorse or reject the recommendations of the Awards Committee, but may not substitute a nominee of its own.

3. In the absence of a nominee who is deemed deserving of the award by both the Awards Committee and the Executive Committee, the award may be withheld.

Distinguished Professional Contributions Award

In recognition of outstanding contributions to the practice of industrial and organizational psychology.

The award is given to an individual who has developed, refined, and implemented practices, procedures, and methods that have had a major impact on both people in organizational settings and the profession of I-O psychology. The contributions of the individual should have advanced the profession by increasing the effectiveness of I-O psychologists working in business, industry, government, and other organizational settings.

The recipient of the award is given a plaque and a cash prize of $1,000. In addition, the recipient is invited to give an address, related to his or her contributions, at the subsequent meeting of SIOP.

Criteria for the Award

The letter of nomination should address the following points:

1. The general nature of the nominee's contributions to the practice of I-O psychology.

2. The contributions that the nominee has made to either (a) the development of practices, procedures, and methods, or (b) the implementation of practices, procedures, and methods. If appropriate, contributions of both types should be noted.

3. If relevant, the extent to which there is scientifically sound evidence to support the effectiveness of the relevant practices, procedures, and methods of the nominee.

4. The impact of the nominee's contributions on the practice of I-O psychology.

5. The stature of the nominee as a practitioner vis-à-vis other prominent practitioners in the field of I-O psychology.

6. The evidence or documentation that is available to support the contributions of the nominee. Nominators should provide more than mere testimonials about the impact of a nominee's professional contributions.

7. The extent to which the nominee has disseminated information about his or her methods, procedures, and practices through publications, presentations, workshops, and so forth. The methods, procedures, and practices must be both available to and utilized by other practicing I-O psychologists.

8. The organizational setting(s) of the nominee's work (industry, government, academia, etc.) will not be a factor in selecting a winner of the award.

Distinguished Scientific Contributions Award

In recognition of outstanding contributions to the science of industrial and organizational psychology.

This award is given to the individual who has made the most distinguished empirical and/or theoretical scientific contributions to the field of I-O psychology. The setting in which the nominee made the contributions (i.e., industry, academia, government) is not relevant.

The recipient of the award is given a plaque and a cash prize of $1,000. In addition, the recipient is invited to give an address, that relates to his or her contributions, at the subsequent meeting of SIOP.

Criteria for the Award

The letter of nomination should address the following issues:

1. The general nature of the nominee's scientific contributions.
2. The most important theoretical and/or empirical contributions.
3. The impact of the nominee's contributions on the science of I-O psychology, including the impact that the work has had on the work of students and colleagues.
4. The stature of the nominee as a scientist vis-à-vis other prominent scientists in the field of I-O psychology.

Distinguished Service Contributions Award

In recognition of sustained, significant, and outstanding service to the Society for Industrial and Organizational Psychology.

This award is given for sustained, significant, and outstanding service to SIOP. Service contributions can be made in a variety of ways which include but are not limited to serving as (a) an elected officer of the Society, (b) the chair of a standing or ad hoc committee of the Society, (c) a member of a standing or ad hoc committee of the Society, and (d) a formal representative of the Society to other organizations. The recipient is given a plaque and cash prize of $1,000.

Criteria for the Award

The letter of nomination should address the nature and quality of the nominee's service contributions. A detailed history of the individual's service-oriented contributions should be provided. It should specify:

1. The offices held by the nominee.
2. The duration of his or her service in each such office.
3. The significant achievements of the nominee while an incumbent in each office.

Ernest J. McCormick Award for Distinguished Early Career Contributions

In recognition of distinguished early career contributions to the science or practice of industrial and organizational psychology.

This award is given to an individual who has made distinguished contributions to the science and/or practice of I-O psychology within 7 years of receiving the PhD degree. In order to be considered for the 2002 Award, nominees must have defended their dissertation no earlier than 1995. The setting in which the nominee has made the contributions (i.e., academia, government, industry) is not relevant.

The recipient of the award is given a plaque and a cash prize of $1,000. In addition, the recipient is invited to give an address, that relates to his or her contribution, at the subsequent meeting of SIOP.

Criteria for the Award

The letter of nomination should address the following issues:

1. The general nature of the nominee's contributions to science and/or practice.
2. The most important contributions to science and/or practice.
3. The impact of the nominee's contribution on the science and/or practice of I-O psychology, including the impact that the work has had on the work of students and colleagues.
4. The status of the nominee as a scientist and/or practitioner vis-à-vis other prominent scientists and/or practitioners in the field of I-O psychology.
5. While the number of publications is an important consideration, it is not the only one. An equally important criteria is the quality of the publications and their impact on the field of I-O psychology.

Documentation should be provided that indicates that the nominee received his or her PhD degree no earlier than 1995.

S. Rains Wallace Dissertation Research Award

In recognition of the best doctoral dissertation research in the field of industrial and organizational psychology.

This award is given to the person who completes the best doctoral dissertation research germane to the field of I-O psychology. The winning dissertation research should demonstrate the use of research methods that are both rigorous and creative. The winner of the award will receive a plaque, a cash prize of $1,000, and the opportunity to present their dissertation research in a poster session at the next meeting of SIOP.

Criteria for Evaluation and Submissions

Dissertation summaries will be evaluated in terms of the following criteria:

1. The degree to which the research addresses a phenomenon that is of significance to the field of I-O psychology.

2. The extent to which the research shows appropriate consideration of relevant theoretical and empirical literature. This should be reflected in both the formulation of hypotheses tested and the selection of methods used in their testing.

3. The degree to which the research has produced findings that have high levels of validity (i.e., internal, external, construct, and statistical conclusion). The setting of the proposed research is of lesser importance than its ability to yield highly valid conclusions about a real-world phenomenon of relevance to the field of I-O psychology. Thus, the methods of the research (including subjects, procedures, measures, manipulations, and data analytic strategies) should be specified in sufficient detail to allow for an assessment of the capacity of the proposed research to yield valid inferences.

4. The extent to which the author (a) offers reasonable interpretations of the results of his or her research, (b) draws appropriate inferences about the theoretical and applied implications of the same results, and (c) suggests promising directions for future research.

5. The degree to which the research yields information that is both practically and theoretically relevant and important.

6. The extent to which ideas in the proposal are logically, succinctly, and clearly presented.

Guidelines for Submission of Proposal

1. Entries may be submitted only by individuals who are endorsed (sponsored) by a member of SIOP, the American Psychological Society, or the American Psychological Association.

2. Each entrant should submit 10 copies of their paper (not to exceed 30 pages of double-spaced text) based on his or her dissertation. The name of the entrant, institutional affiliation, current mailing address, and phone number should appear only on the title page of the paper.

3. Papers are limited to a maximum of 30 double-spaced pages. This limit includes the title page, abstract, text, tables, figures, and appendices. However, it excludes references.

4. Papers should be prepared in accord with the guidelines provided in the fourth edition of the Publication Manual of the American Psychological Association. Note, however, that the abstract may contain up to 300 words.

5. The paper must be based on a dissertation that was accepted by the

graduate college 2 years or less before **June 1, 2001**, with the stipulation than an entrant may only submit once.

6. The entrant must provide a letter from his or her dissertation chair that specifies the date of acceptance of the dissertation by the graduate school of the institution and that the submission adequately represents all aspects of the completed dissertation. In addition, the entrant must provide a letter of endorsement from a member of SIOP, the American Psychology Society, or the American Psychological Association who is familiar with the entrant's dissertation. Both of these letters may be from the same individual.

7. Entries (accompanied by supporting letters) must be received by **June 1, 2001.**

Administrative Procedures

1. All entries will be reviewed by the Awards Committee of SIOP.

2. The Awards Committee will make a recommendation to the Executive Committee of SIOP about the award-winning dissertation and, if appropriate, up to two dissertations deserving honorable mention status.

3. The Executive Committee may either endorse or reject the recommendations of the Awards Committee, but may not substitute recommendations of its own.

4. In the absence of a dissertation that is deemed deserving of the award by both the Awards Committee and the Executive Committee, the award may be withheld.

William A. Owens Scholarly Achievement Award

In recognition of the best publication (appearing in a refereed journal) in the field of industrial and organizational psychology during the past full year (2000).

This annual award, honoring William A. Owens, is given to the author(s) of the publication in a refereed journal judged to have the highest potential to significantly impact the field of I-O psychology. There is no restriction on the specific journals in which the publication appears, only that the journal be refereed and that the publication concerns a topic of relevance to the field of I-O psychology. Only publications with a 2000 publication date will be considered.

The author(s) of the best publication is (are) awarded a plaque and a $1,000 cash prize (to be split in the case of multiple authors).

Criteria for Evaluation of Publications

Publications will be evaluated in terms of the following criteria:

1. The degree to which the research addresses a phenomenon that is of significance to the field of I-O psychology.

2. The potential impact or significance of the publication to the field of I-O psychology.

3. The degree to which the research displays technical adequacy, including issues of internal validity, external validity, appropriate methodology, appropriate statistical analysis, comprehensiveness of review (if the publication is a literature review), and so forth.

Guidelines for Submission of Publications

1. Publications may be submitted by any member of SIOP, the American Psychological Society, the American Psychological Association, or by any person who is sponsored by a member of one of these organizations. Self- and other-nominations are welcome. The Owens Award subcommittee may also generate nominations. Those evaluating the publications will be blind to the source of the nomination.
2. Publications having multiple authors are acceptable.
3. Ten copies of each publication should be submitted.
4. Publications must be received by **June 1, 2001**.

Administrative Procedures

1. Publications will be reviewed by a subcommittee of the Awards Committee of SIOP, consisting of at least six members.

2. The Awards Committee will make a recommendation to the Executive Committee of SIOP about the award-winning publication and, if appropriate, a publication deserving honorable mention status.

3. The Executive Committee may either endorse or reject the recommendations of the Awards Committee but may not substitute a nominee of its own.

4. In the absence of a publication that is deemed deserving of the award by both the Awards Committee and the Executive Committee, the award may be withheld.

M. Scott Myers Award for Applied Research in the Workplace

In recognition of a project or product representing an outstanding example of the practice of industrial and organizational psychology in the workplace.

This annual award, honoring M. Scott Myers, will be given to an individual practitioner or team of practitioners who have developed and conducted/applied a specific project or product representing an example of outstanding practice of I-O psychology in the workplace (i.e., business, industry, government). Projects must have been conducted in the workplace within the last 40 years and cover a time period of no more than 8 years. Products (e.g., tests, questionnaires, videos, software, but not books or articles) must be used in the workplace and developed within the last 40 years. Projects or products may be in any area of I-O psychology (e.g., compensation, employee relations, equal employment opportunity, human factors, job analysis, job design, organizational development, organizational behavior, leadership, position classification, safety, selection, training).

The award recipient(s) will receive a plaque commemorating the achievement, a cash prize of $1,000, and an invitation to make a presentation at the annual Conference of SIOP. Team awards will be shared among the members of the team.

Criteria for Evaluation of Projects or Products

Nominations will be evaluated on the extent to which they:

1. Have a sound technical/scientific basis.
2. Advance objectives of clients/users.
3. Promote full use of human potential.
4. Comply with applicable psychological, legal, and ethical standards.
5. Improve the acceptance of I-O psychology in the workplace.
6. Show innovation and excellence.

Guidelines for Submission of Projects or Products

1. Nominations may be submitted by any member of SIOP. Self-nominations are welcome.

2. Individuals or teams may be nominated. Each individual nominee must be a current member of the Society. If a team is nominated, at least one of the team members must be a current member of the Society, and each team member must have made a significant contribution to the project or product.

3. Each nomination package must contain the following information:

   (a) A letter of nomination which explains how the project or product meets the six evaluation criteria above.
   (b) A technical report which describes the project or product in detail. This may be an existing report.
   (c) A description of any formal complaints of a legal or ethical nature which have been made regarding the project or product.
   (d) A list of three client references who may be contacted by the Myers Award subcommittee regarding the project or product.
   (e) (Optional) Any other documentation which may be helpful for

evaluating the nomination (e.g., a sample of the product, technical manuals, independent evaluations).

4. Six copies of all nomination materials should be submitted. The Awards Committee will maintain the confidentiality of secure materials.

5. Nominations must be received by **June 1, 2001**.

Administrative Procedures

1. Nomination materials will be reviewed by a subcommittee of the SIOP Awards Committee, consisting of at least three members, all of whom work primarily as I-O practitioners.
2. The Awards Committee will make a recommendation to the SIOP Executive Committee about the award-winning project or product.
3. The Executive Committee may either accept or reject the recommendation of the Awards Committee, but may not substitute a nominee of its own.
4. In the absence of a nominee that is deemed deserving of the award by both the Awards Committee and the Executive Committee, the award may be withheld.

Past SIOP Award Recipients

Listed below are past SIOP award recipients as well as SIOP members who have received APA, APF, or APS awards.

Distinguished Professional Contributions Award

1977 Douglas W. Bray
1978 Melvin Sorcher
1979 Award withheld
1980 Award withheld
1981 Carl F. Frost
1982 John Flanagan
1983 Edwin Fleishman
1984 Mary L. Tenopyr
1985 Delmar L. Landen
1986 Paul W. Thayer
1987 Paul Sparks
1988 Herbert H. Meyer
1989 William C. Byham
1990 P. Richard Jeanneret
1991 Charles H. Lawshe
1992 Gerald V. Barrett
1993 Award withheld
1994 Patricia J. Dyer
1995 Allen I. Kraut
1996 Erich Prien
1997 John Hinrichs
1998 Gary P. Latham
1999 Lowell Hellervik
2000 Joseph L. Moses

Distinguished Scientific Contributions Award

1983 William A. Owens
1984 Patricia C. Smith
1985 Marvin D. Dunnette
1986 Ernest J. McCormick
1987 Robert M. Guion
1988 Raymond A. Katzell
1989 Lyman W. Porter
1990 Edward J. Lawler III
1991 John P. Campbell
1992 J. Richard Hackman
1993 Edwin A. Locke
1994 Bernard M. Bass
1995 Frank Schmidt and John Hunter
1996 Fred Fiedler
1997 Charles Hulin
1998 Terence Mitchell and Victor H. Vroom
1999 Neal Schmitt
2000 Benjamin Schneider

Distinguished Service Contributions Award

1989 Richard J. Campbell and Mildred E. Katzell
1990 Paul W. Thayer
1991 Mary L. Tenopyr
1992 Irwin L. Goldstein
1993 Robert M. Guion
1994 Ann Howard
1995 Milton D. Hakel
1996 Sheldon Zedeck
1997 Ronald Johnson
1998 Neal Schmitt
1999 Richard Klimoski and William Macey
2000 Paul Sackett

Ernest J. McCormick Award for Distinguished Early Career Contributions

1992 John R. Hollenbeck
1993 Raymond A. Noe
1994 Cheri Ostroff
1995 Timothy A. Judge
1996 Joseph Martocchio
1997 Stephen Gilliland
1998 Deniz S. Ones and Chockalingam Viswesvaran
1999 Richard DeShon
2000 Award withheld

William A. Owens Scholarly Achievement Award

1998 Avraham N. Kluger and Angelo S. DeNisi
1999 David Chan and Neal Schmitt
1999 Peter Dorfman, Jon Howell, Shozo Hibino, Jin Lee, Uday Tate, and Arnoldo Bautista
2000 Paul Tesluk and Rick Jacobs

M. Scott Myers Award for Applied Research in the Workplace

1998 Frank L. Landy, James L. Farr, Edwin Fleishman, and Robert J. Vance

1999 Chris Hornick, Kathryn Fox, Ted Axton, Beverly Wyatt, and Therese Revitte
2000 HumRRO, PDRI, RGI, Caliber, and FAA

Edwin E. Ghiselli Award for Research Design

1984 Max Bazerman and Henry Farber
1985 Gary Johns
1986 Craig Russell and Mary Van Sell
1987 Sandra L. Kirmeyer
1988 Award withheld
1989 Kathy Hanisch and Charles Hulin
1990 Award withheld
1991 Award withheld
1992 Julie Olson and Peter Carnevale
1993 Elizabeth Weldon and KarenJehn
1994 Linda Simon and Thomas Lokar
1995 Award withheld
1996 Award withheld
1997 Kathy Hanisch, Charles Hulin, and Steven Seitz
1998 David Chan
1999 Award withheld
2000 Award withheld

S. Rains Wallace Dissertation Research Award

1970 Robert Pritchard
1971 Michael Wood
1972 William H. Mobley
1973 Phillip W. Yetton
1974 Thomas Cochran
1975 John Langdale
1976 Denis Umstot
1977 William A. Schiemann
1978 Joanne Martin and Marilyn Morgan
1979 Stephen A. Stumpf
1980 Marino S. Basadur
1981 Award withheld
1982 Kenneth Pearlman
1983 Michael Campion
1984 Jill Graham
1985 Loriann Roberson
1986 Award withheld
1987 Collette Frayne
1988 Sandra J. Wayne
1989 Leigh L. Thompson
1990 Award withheld
1991 Rodney A. McCloy
1992 Elizabeth W. Morrison
1993 Deborah F. Crown
1994 Deniz S. Ones
1995 Chockalingam Viswesvaran
1996 Daniel Cable and Steffanie Wilk
1997 Tammy Allen
1998 David W. Dorsey and Paul E. Tesluk
1999 Taly Dvir
2000 Steven Scullen

John C. Flanagan Award for Best Student Contribution at SIOP

1993 Susan I. Bachman, Amy B. Gross, Steffanie L. Wilk
1994 Lisa Finkelstein
1995 Joann Speer-Sorra

1996 Frederick L. Oswald and Jeff W. Johnson
1997 Syed Saad and Paul Sackett
1998 Frederick P. Morgeson and Michael A. Campion
1999 Chris Kubisiak, Mary Ann Hanson, and Daren Buck
2000 Kristen Horgen, Mary Ann Hanson, Walter Borman, and Chris Kubisiak

Robert J. Wherry Award for the Best Paper at the IO-OB Conference

1980-82 Missing
1983 Maureen Ambrose
1984-87 Missing
1988 Christopher Reilly
1989 Andrea Eddy
1990 Amy Shwartz, Wayne Hall, J. Martineau and R. Sinclair
1991 Paul Van Katwyk
1992 Sarah Moore-Hirschl
1993 Daniel Skarlicki
1994 Talya Bauer and Lynda Aiman-Smith
1995 Mary Ann Hannigan
1996 Adam Stetzer and David Hofmann
1997 Scott Behson and Edward P. Zuber, III
1998 Dana Milanovich and Elizabeth Muniz
1999 Michael Grojean and Paul Hanges

SIOP Members who have Received APA Awards

Award for Distinguished Professional Contributions

1976 John C. Flanagan
1980 Douglas W. Bray
1989 Florence Kaslow
1991 Joseph D. Matarazzo
1992 Harry Levinson

Award for Distinguished Scientific Contributions ot Psychology

1957 Carl I. Hovland
1972 Edwin E. Ghiselli

Distinguished Scientific Award for the Applications of Psychology

1980 Edwin A. Fleishman
1983 Donald E. Super
1987 Robert Glaser
1994 John E. Hunter and Frank Schmidt

Distinguished Scientific Award for an Early Career Contribution to Psychology

1989 Ruth Kanfer
1994 Cheri Ostroff

Award for Distinguished Contributions to the International Advancement of Psychology

1994 Harry C. Triandis
1999 Edwin A. Fleishman

SIOP Members who have Received APF Awards

Gold Medal Award for Life Achievement in the Application of Psychology

1986 Kenneth E. Clark
1988 Morris S. Viteles
1991 Douglas W. Bray
1993 John C. Flanagan
1994 Charles H. Lawshe

SIOP Members who have Received APS Awards

James McKeen Cattell Fellow Award

1993 Edwin A. Fleishman, Robert Glaser, and Donald E. Super
1998 Harry C. Triandis
1999 Fred E. Fiedler and Robert J. Sternberg
2000 Robert M. Guion

TIP MISSIVES

The Price or The Prince of Fame?

Ms. Waclawski,

I enjoyed reading your January Real World editorial on the *TIP* Web site. Although I have not read Bing's book, I have thumbed through it at my local Borders. Is there anything better than having the actual book in your hands? Actually yes, but I digress. It looked good natured and given your comment regarding how funny it is, I will even consider reading it now.

On a serious note, the real question that must be asked whenever a contemporary author uses/misuses Machiavelli, is: Did the author truly understand what Machiavelli was doing in *The Prince*? Unfortunately the answer is always "no," and then I'm left wondering if the people have read *The Prince* and, if so, did they read any of the quality commentaries of it (e.g. ,Leo Strauss). I don't want to sound pedantic, but to say that Machiavelli can be distilled to "the ends justifies the means" is as comprehensive as saying Freud was all about sex.

Is there wisdom in Machiavelli? Yes. How do we know? What, you won't take my word for it? Ok...fine...well then, how about because the likes of Francis Bacon and Nietzsche say so? Can all of us apply this wisdom to our everyday lives and careers? No, because that was not the context for which *The Prince* was written. What was the context? To paraphrase Socrates, "Leadership writ big."

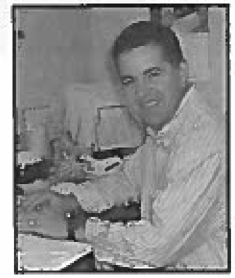
I'd love to continue this discussion, but since I'm not sure anyone is listening or cares to hear more, I'll stop now. I don't mind talking to myself, but I abhor the idea of typing to myself. I'd love to discuss the existing leadership bankruptcy, but only if you're interested.

Take heart, because if history is a good example, the existing black plague of leadership can be a precursor to a renaissance.

Regards,
Phil Amsrud
phil.amsrud@gte.net

TIP Crossword Answers

Steven Katzman
KPMG LLP



Don't look! You can still attempt the crossword that appeared in the January 2001 edition of *TIP*. The answers to the January 2001 puzzle, entitled "Intro to Personnel Psychology," are in the grid below.

For those of you who took the challenge, I hope you enjoyed! If you have any questions or comments, please feel free to e-mail me at skatzman@kpmg.com.

Intro to Personnel Psychology

R	A	C	E		I	O			P	A	S	T	E
O	P	E	N	I	N	G		I	S	S	U	E	S
S	E	L	E	C	T	I	O	N			M	A	P
E	X	T	R	A	E		V	I	T	A	M	I	N
		I	G	O	R		A	T	O	M	I	C	
L	A	C	Y		V	A	L	I	D	I	T	Y	
A	L	S		E	I	N		A	O	N			
R	T			L	E	G	A	L			U	A	W
K	O	W		A	W	O	L		P	O	S	S	E
		O	I	L		F	A	I	R	N	E	S	S
C	L	E	M			F	R	E	E			E	T
A	O		P	U	N					T	I	S	
J	O	B	A	N	A	L	Y	S	I	S		S	R
U	S	M	C		S	I	E	S	T	A		E	N
N	E	W	T		A	P	P	E	A	R		S	S

IOTAS

Allan H. Church
PepsiCo, Inc.

Important: As this is my last issue as *TIP* editor, be sure to send your new job changes, awards, promotions, book announcements, and all future items of interest to the incoming editor, **Debbie Major**, at dmajor@odu.edu. She'll be glad you did.

People on the Move

Milt Hakel was recently elected to chair the U.S. National Committee for the International Union of Psychological Science. He will be a delegate and lead the U.S. delegation to the Beijing conference in 2004. That ought to be a trip and a half!

David Oliver e-mailed to let people know that he left GTE and joined Frito Lay North America in Plano, Texas in September 2000. At FLNA, he's group manager responsible for selection, organizational health, and 360 performance reviews. You can reach him at david.h.oliver@fritolay.com or (972) 334-5993.

Books by SIOP Members

TIP Alumni **Lori Foster Thompson** (columnist) and **Mike Coovert** (former editor) wanted to let people know about their new book: Coovert, & Thompson, *Computer Supported Cooperative Work: Issues and Implications for Workers, Organizations, and Human Resource Management* (2001) published by Sage. Congratulations! Lori and Michael can be reached respectively at FosterL@mail.ecu.edu and coovert@luna.cas.usf.edu

Dave Bracken, Carol Timmreck and I had finally saw our hard work pay off this past December when our edited volume—*The Handbook of Multisource Feedback: The Comprehensive Resource for Designing and Implementing MSF Processes* was officially released by Jossey-Bass. Be forewarned, however, with more than 50 different contributors (including many SIOP members) and 30 chapters, this is not a short book!

OBITUARIES

Jimmy L. Mitchell, PhD, a prominent figure in work analysis and military training, died suddenly of a heart attack on the evening of December 19, 2000, at his home in Converse, Texas. A retired Lt. Colonel in the U.S. Air Force, he was buried with Full Military Honors at Fort Sam Houston National Cemetery in San Antonio. Jimmy is survived by his wife, Heidi J. Mitchell; their five children, Ian, Mark, Thane, Forrest, and Kirsten; their four grandchildren, Ardis, Benjamin, Gabriel, and Kelsey; and his brother, Henry. At the time of his death, Jimmy was Director and Chairman of the Board of the Institute for Job and Occupational Analysis (IJOA) in San Antonio, a not-for-profit corporation devoted to the study of the world of work, which he founded in 1993. Previously, he had served 27 years with the Air Force, followed by over 11 years with McDonnell Douglas Astronautics Company (now McDonnell Aerospace), the last 3 of which coincided with his work at IJOA.

Born on December 29, 1935, in Wichita Falls, Texas, Jimmy earned his BA degree at Phillips University in 1957, his MA at Ohio State in 1966, and his PhD at Purdue in 1978. He held the unique distinction of having earned his graduate degrees under two major figures in 20th century job and occupational analysis, Carroll Shartle (at Ohio State) and Ernest McCormick (at Purdue). Jimmy began his Air Force career in 1957 as a psychiatric clinic technician at the USAF Hospital, Wright-Patterson AFB, followed by service as a security police officer with the Strategic Air Command and U.S. Air Forces Europe. He was subsequently assigned to the graduate program at Ohio State to pursue his master's degree, after which he joined the Civilian Institutions Division of the Air Force Institute of Technology, Wright-Patterson AFB, as an administrator working with civilian university degree programs for Air Force officer and enlisted students. His ensuing years in the Air Force were devoted to test development and occupational analysis with the 3700th Occupational Measurement Squadron, Lackland AFB; the graduate program at Purdue, where he earned his doctorate; and the USAF Occupational Measurement Center, Randolph AFB, where he directed occupational survey studies as Chief of USAF Airmen Analysis. During his last 10 years in the Air Force, Jimmy also served as editor of *Air Force Psychology News*, a quarterly career development newsletter for behavioral scientists. Upon retiring from the Air Force in 1984, Jimmy continued his work in job and occupational analysis, first with McDonald Douglas and later with IJOA, focusing much of his effort on issues related to military training.

Jimmy had a strong commitment to his profession and a genuine altruistic interest in advancing the field of work analysis. An anonymous sage once noted that there are two ways of spreading light: To be a candle or to be the mirror that reflects it. In a sense, Jimmy was both. As a candle, he generated ideas and conducted research which he reported in journals, book chapters, technical reports, and numerous professional conferences, including the proceedings of the International Military Testing Association (IMTA), the International Occupational Analysts Workshops, the Applied Behavioral Sciences Symposia (previously the Psychology in the DoD Symposia), APA (Division 19), and SIOP. He was very active in these organizations and programs, providing leadership and vision through his service on various committees and boards, and received the 1994 Harry H. Greer Award for his outstanding contributions to IMTA. He developed the Professional and Managerial Position Questionnaire (with Ernest McCormick), authored two chapters in the *Job Analysis Handbook for Business, Industry, and Government*, and was considered to be the foremost authority on the history of job analysis in the military, having written both a book chapter and a journal article on that topic.

As a mirror, Jimmy devoted much unselfish time and effort to showcasing and disseminating the work of others, particularly that of his younger colleagues. He played a unique and vital role as a facilitator and organizer in the field of work analysis, initiating and planning symposia, workshops, and other professional events, including a recent one-day symposium on the future of job analysis. He was the founding editor-in-chief of a new peer-reviewed electronic journal, *Ergometrika* (www.ergometrika.org), devoted to the analysis and study of human work. The journal had been one of his dreams for some years, and he posted its first issue just one week before his death. Over the years, Jimmy also played a significant role in promoting and spreading the use of the Air Force job-task inventory method throughout the military services and in the civilian sector as well. In addition, he found time to pass his knowledge of the field on to the next generation, teaching occasional courses at the University of Texas at Austin and Saint Mary's University in San Antonio.

Jimmy enjoyed life and he loved people, in all their diversity. His many interests included archaeology, history, genealogy, and science fiction. He was a charter member of the Southern Texas Archaeological Association and edited the association's journal, *La Tierra*, for 10 years. But perhaps his greatest legacy resides in all those whose careers he facilitated and lives he improved. Jimmy was the consummate mentor. As his many friends and beneficiaries will attest, he derived great satisfaction from helping others achieve their goals and realize their potential. Always looking for the best

in people, he was quick to recognize their strengths but forgiving of their shortcomings. On top of it all, he was possessed of a warm and engaging sense of humor, an outgoing and approachable demeanor, a bright and optimistic spirit, and a generous nature. These qualities and his unpretentious humanity are what Jimmy's friends will miss the most.

In the words of Woodrow Wilson, "Do not forget, you are here to enrich the world and you impoverish yourself if you forget the errand." Jimmy never lost sight of his errand. He enriched all who knew him and the world at large. His time on earth, though all too short, was well spent. He will be sorely missed by a legion of friends and admirers, and his early departure leaves a void in the field of work analysis that no one else will likely fill.

Those wishing to memorialize Jimmy can contribute to the Jimmy L. Mitchell Archaeological Scholarship Fund by mailing checks payable to the Southern Texas Archaeological Association to IJOA, Scholarship Fund, 10010 San Pedro, Suite 440, San Antonio, TX 78216.

--Bill Cunningham*

*with invaluable help from Loretta Whitehead, Randy Agee, Winston Bennett, Roger Fites, and Mark Wilson.

CONFERENCES AND MEETINGS

This list was prepared by David Pollack. Please submit additional entries to David Pollack at David.M.Pollack@usdoj.gov.

2001

April 10–14	Annual Convention, American Educational Research Association. Seattle, WA. Contact: AERA, (202) 223-9485.
April 10–14	Annual Convention, National Council on Measurement in Education. Seattle, WA. Contact: NCME, (202) 223-9318.
April 27–29	16th Annual Conference of the Society for Industrial and Organizational Psychology. San Diego, CA. Contact: SIOP, (419) 353-0032. www.siop.org.
May 13–16	National Training Conference of the International Personnel Management Association--Canada. Fredericton, New Brunswick, Canada. Contact: Loverne Gretsinger, (780) 492-8165 or loverne.gretsinger@ualberta.ca.
May 16–19	10th European Congress on Work and Organizational Psychology. Prague, Czechoslovakia. Contact: EAWOP Secretariat +32/4/3662013. www.geocities.com/CAPAcz.
May 22–25	31st Annual Information Exchange on What is New in O.D., Chicago, IL. Contact: Organization Development Institute, (440) 729-7419.
May 23–25	9th Annual Symposium on Individual, Team, and Organization Effectiveness. Denton, TX. Contact: Center for the Study of Work Teams, (940) 565-2198 or workteam@unt.edu.
June 3–7	Annual Conference of the American Society for Training and Development. Orlando, FL. Contact: ASTD, (703) 683-8100.

June 9–14 Annual Conference of the International Personnel Management Association Assessment Council. Newport Beach, CA. Contact: IPMA, (703) 549-7100.

June 14–17 Annual Convention of the American Psychological Society. Toronto, Canada. Contact: APS, (202) 783-2077.

June 21–24 4th Australian Industrial & Organisational Psychology Conference 2001. Sydney, Australia. Contact: Natalie at International Conferences & Events, +61 (2) 9544 9134 or natalie@iceaustralia.com.

June 24–27 Annual Conference of the Society for Human Resource Management. San Francisco, CA. Contact: SHRM, (703) 548-3440.

July 16–21 21st OD World Congress. Vienna, Austria. Contact: Organization Development Institute, (440) 729-7419.

July 29–Aug 3 28th Interamerican Congress of Psychology. Santiago, Chile. Contact: Bernardo Ferdman, (858) 623-2777 x362 or bferdman@cspp.edu.

Aug 5–8 Annual Meeting of the Academy of Management. Washington, DC. Contact: Academy of Management, (914) 923-2607.

Aug 5–9 Annual Convention of the American Statistical Association. Atlanta, GA. Contact: ASA, (703) 684-1221.

Aug 5–10 4th International Conference on Engineering Psychology and Cognitive Ergonomics. New Orleans, LA. Contact: Gavriel Salvendy, (765) 494-5426 or salvendy@ecn.purdue.edu.

Aug 24–28 Annual Convention of the American Psychological Association. San Francisco, CA. Contact: APA, (202) 336-6020.

Sept. 10–12 12th Annual International Conference on Work Teams. Dallas, TX. Contact: Center for the Study of Work Teams, (940) 565-3096 or workteam@unt.edu.

Sept 30–Oct 2 29th International Congress on the Assessment Center Method. Frankfurt, Germany. Contact: DDI, (412) 257-3952.

Oct 8–12 Annual Conference of the Human Factors and Ergonomics Society. Minneapolis, MN. Contact: The Human Factors and Ergonomics Society, (310) 394-1811.

2002

March 1–3 23rd Annual IO–OB Graduate Student Coference. Tampa, FL. Contacts: Tom King (Tking@cs.com) or Kim Hoffman (khoffma2@luna.cas.usf.edu).

March 21–24 Annual Conference of the Southeastern Psychological Association. Orlando, FL. Contact: SEPA, (850) 474-2070 or www.am.org/sepa/.

March 23–26 Annual Conference of the American Society for Public Administration. Phoenix, AZ. Contact: ASPA, (202) 393-7878 or www.aspanet.org.

CALLS AND ANNOUNCEMENTS

Call for Proposals

The University of Oklahoma Bio-Data Conference: Advances in Application

Bio-Data and its application, have seen a tremendous amount of attention over the past 2 decades. As we enter the new millennium, our understanding of Bio-Data and its uses sits at a crossroads. We continue to examine the measurement and application of Bio-Data in traditional ways; however, we look to expand the research and application into new areas of thought.

Four years ago, the University of Georgia held a conference concerning Bio-Data. The conference generated great interest in the field of Bio-Data. As the topics generated in that first conference continue to see research effort, the field of Bio-Data sits on the cusp of expanding into nontraditional Bio-Data topics. The University of Oklahoma Bio-Data Conference seeks to shed light on where the field of Bio-Data has been and where the field of Bio-Data will move to in the future.

The University of Oklahoma Bio-Data Conference will explore topics in Bio-Data such as

- Traditional Measurement Issues—Item Development, Faking
- Emerging Measurement Issues—IRT, Variance Sources, Incremental Validity, Consequential Validity
- Theoretical Issues—Item Generation, Life Events
- Traditional Application Issues—Selection, Career Development, Career Management
- Emerging Application Issues—Training, Recruiting, Teams
- Business Issues—Web-Based, Client Perceptions/Needs, Cost/Gain Utility

The Bio-Data Conference also welcomes issues in the field not mentioned above.

Session formats. Session formats include symposia, panel discussions, round-table discussion, graduate student colloquiums, paper presentations, and workshops.

Submissions. Interested researchers should send an abstract of their paper of no more than 1,000 words in length. Please indicate on the abstract the title of the paper, the author(s), affiliation, and mailing address.

Review of proposals. Members of the Program Committee will review the proposals for technical soundness, theoretical or practical significance, and overall interest to the field of Bio-Data. The Program Committee will send notification of acceptance/nonacceptance by the end of July 2001. At that time, the Program Committee will also extend invitations to selected individuals to participate in certain panel and round-table discussions. The Program Committee seeks to publish highlighted papers in a book format, but the Program Committee asks that any person(s) wanting to include a paper must bring that paper and a copy of the paper on diskette to the conference in person.

To receive more information regarding the University of Oklahoma Bio-Data Conference, please contact either **Dr. Michael Mumford, Professor of Psychology, University of Oklahoma, 755 West Lindsey St., Rm. 705, Norman, OK 73019, (405) 325-5583, fax (405) 325-4737** or **Dr. Craig Russell, Professor of Business and Psychology, University of Oklahoma, Price Business College, Norman, OK 73019, (405) 325-2458, (405) 325-1957.** Additional information about the conference can be obtained through the University of Oklahoma, Department of Psychology's Web site at www.ou.edu/cas/psychology.

Call for Submissions

Seymour Adler Scientist-Practitioner Doctoral Dissertation Grant

The scientist-practitioner model represents the application of sound and professional theory and research to solve real-world problems. Dr. Seymour Adler's 25-year career in I-O psychology has been an outstanding example of the successful application of the scientist-practitioner model. In recognition of this fact, Assessment Solutions Incorporated (ASI) has established The Seymour Adler Scientist-Practitioner Doctoral Dissertation Grant.

This annual grant in the amount of $5,000 shall be provided to the PhD candidate whose dissertation proposal best exemplifies a sound balance of rigorous, theory-guided academic research, and practical business application. The dissertation can be conducted in either a laboratory or field research setting as long as the results are applicable to actual business situations.

Requirements. Each applicant must submit two copies of a two-page application that includes the following: title of dissertation, name, affiliation, complete mailing address and daytime telephone number, abstract of the dissertation (not to exceed 400 words). The applicant's dissertation chair must submit a signed cover letter indicating why the proposed dissertation is appropriate for consideration for the Seymour Adler Scientist-Practitioner Doctoral Dissertation Award.

From the applications received, the top three applicants will be invited to submit their complete dissertation proposals for review. Proposals must be submitted in standard APA format. The winning proposal will be chosen from among these three.

Judging criteria. A committee of experienced, professional I-O psychologists representing both academia and industry will review the applications and proposals and ultimately determine to whom the grant is awarded. The primary criteria to be considered are (a) quality of research (soundness of methodology and analyses, consideration of relevant literature and theory, innovativeness), and (b) application value (implications for business practice; potential impact of findings). The committee reserves the right to withhold the award if no submission clearly meets the grant requirements.

Submission. The application and cover letter should be sent to the Grant Committee Chair at the following address: **Brian J. Ruggeberg, PhD, Grant Committee Chair, Assessment Solutions Incorporated, 780 Third Ave., 6th Floor, New York, NY 10017.**

All applications must be *received* by June 29, 2001 to be considered. Those applicants selected to submit their complete proposals will be notified by the committee no later than August 1, 2001. Proposals must be received by September 14, 2001. The winning proposal will be announced by October 17, 2001 and awarded the $5,000 research grant immediately thereafter.

Call for Papers

Group and Organization Management—Longitudinal Processes in Groups and Organizations

By way of background, various theorists have suggested that a greater consideration of processes over time will enhance our theorizing. Researchers have long argued that data should focus on capturing events as they occur over time. Moreover, methodologists have provided a number of ways to try and capture various over-time processes. Finally, practitioners often suggest that a consideration of previous events is critical for understanding their situation.

In this special issue of *GOM*, the editors seek to publish theoretical and empirical work that focuses on longitudinal theorizing and data collection about individuals, groups, organizations, or some combination of these levels. The editors will give preference to articles that include longitudinal data that have clear implications for groups, organizations, or individuals in groups and/or organizations. Articles that show with data how a consideration of longitudinal factors increase our understanding of processes in groups and organization are also preferred. The substantive area of study (for example, key factors that relate to performance at any level of analysis, leadership, climate, culture, strategy, organizational structure, communication, and the levels) is open. The one provision is that the article illustrate either the advantages of a longitudinal perspective or the limitations of certain approaches to the analyses of and thinking about longitudinal processes and data.

To be considered for publication, four copies of manuscripts in *GOM* style must be received by July 1, 2001 by either editor: Fred Dansereau, State University of New York at Buffalo, School of Management, 276 Jacobs Management Center, Buffalo, NY 14260, e-mail mgtdanso@acsu.buffalo.edu; or Fran Yammarino, State University of New York at Binghamton, School of Management, Binghamton, NY 13902, e-mail fjyammo@binghamton.edu.

Request for reviewers. If you are interested in serving as an ad hoc reviewer for this special issue, please contact either editor of the special issue.

The European Journal of Work and Organizational Psychology has a New Editorial Team

From September 2000 onwards, a new editorial team is in charge of the *European Journal of Work and Organizational Psychology*. EJWOP is the official journal of the European Association for Work and Organizational Psychologsts (EAWOP) and is also published under auspices the International Association of Applied Psychology (IAAP). The new editorial team consists of Prof. Jose-Maria Peiro (Spain), Prof. Michael West (UK), Prof. Dieter Zapf (Germany) as Associate Editors, and Prof. Fred Zijlstra (UK) as editor in chief.

With the start of January 2001, a new editorial board has been installed as well. The new board consists of leading European and United States experts concerning a variety of relevant specializations. The journal also changed its publishing policy. The journal now aims to publish manuscripts in the domain of work and organizational psychology (I-O psychology) with high academic standards, but with relevance for professionals working in the field of work and organization.

Manuscripts containing empirical studies, literature reviews and/or theoretical studies are welcomed, but authors should make clear what the practical relevance and/or implication of their work is, when this does not automatically become apparent form the study itself. Proposals for special issues are also welcomed, as long they are well motivated and are relevant to the domain of work and organizational psychology.

Best paper award. Together with the Center for Creative Leadership (CCL) EJWOP has installed a Best Paper Award. The best paper on leadership in the *European Journal of Work and Organizational Psychology* in a particular year will be awarded the Center for Creative Leadership Award. The amount awarded to the winner will be $1,000.

Submissions for the *Journal* can be sent to: **Kate Moysen, Production Editor, Psychology Press Ltd., 27 Church Road, Hove, East Sussex, BN3 2FA, United Kingdom, direct line +44(0) 1273 225031, telephone +44(0) 1273 207411 (ext 5031), fax +44(0) 1273 205612, e-mail Kate.Moysen@psypress.co.uk.**

Call for Papers

Human Resource Development Review

Human Resource Development Review is a theory development journal for scholars of human resource development and related disciplines. *Human Resource Development Review* publishes articles that make theoretical contributions in papers devoted to theory development, foundations of HRD, theory-building methods, and integrative reviews of the literature. Papers whose central focus is empirical findings, including empirical validation of theory, and papers that focus on problems of empirical method and design are not considered for publication in *Human Resource Development Review.*

Submissions are encouraged that provide new theoretical insights that can advance our understanding of human resource development. Such papers may include syntheses of existing bodies of theory, new substantive theories, exploratory conceptual models, taxonomies and typologies developed as foundations for theory, treatises in formal theory construction, papers on the history of theory, critique of theory that includes alternative research propositions, metatheory, and integrative literature reviews with strong theoretical implications. Papers addressing foundations of HRD might address philosophies of HRD, historical foundations, definitions of the field, conceptual organization of the field, and ethical foundations. *Human Resource Development Review* takes a multiparadigm view of theory building so submissions from different paradigms are encouraged.

Manuscript requirements. Manuscripts submitted according to the following guidelines will be considered for publication. *Human Resource Development Review* (HRDR) adheres to a blind review process. Decisions regarding publication of all submitted manuscripts are based on initial review by the editor and recommendations by the editorial review board. Manuscripts appropriate for HRDR are forwarded on for blind review.

Manuscript preparation. Authors should prepare manuscripts in accordance with the guidelines of the *Publication Manual of the American Psychological Association (APA), (4th ed.).*

- Title page should include the full title, author's name, institutional affiliation, address, telephone number, and e-mail address for future correspondence.
- Abstract of approximately 150 words and text of the manuscript should be double-spaced. No author identification should appear anywhere in the manuscript other than on the title page.
- Manuscripts should be no longer than 30 double-spaced pages, excluding references and figures.
- Use nondiscriminatory language.
- Include a cover letter stating that the manuscript is the author's original work, has not been published elsewhere, and is not under consideration for publication elsewhere at the time it is submitted.
- If the manuscript is prepared using Microsoft Word, authors are encouraged to **submit electronically by e-mailing the manuscript to eholton2@lsu.edu.** Others should submit five (5) copies of a manuscript that is blind-review ready along with an electronic copy on a PC-readable diskette.

Send manuscripts to: **Dr. Elwood F. Holton, III, Editor, *Human Resource Development Review,* School of Human Resource Education and Workforce Development, Louisiana State University, 142 Old Forestry Building, Baton Rouge, LA 70803, USA.**

Show Me the Money!

The Decade of Behavior Presents a Powerful New Funding Search Tool

Announcing a valuable new resource for the behavioral and social sciences! The APA Decade of Behavior initiative is excited to present **FundSource**, the first *searchable* Web site devoted exclusively to seeking funding opportunities across the gamut of behavioral and social sciences. FundSource is unique because it offers a variety of search formats. It can deliver either a description and contact information for funding sources, or it can perform a direct, full-text search of funding-source Web pages. Searches can be tailored by organization name, discipline, or topic, and they can be done separately for foundations, federal agencies, and international sources. At present, FundSource concentrates on funding for research activities. As it expands, it will also include tips on writing grants, as well as links to information on fellowships, sabbatical support, and conference funding. Keeping up with research funding can be a full-time job; this Web site will save you time and enhance your ability to match your research interests with a source that funds your specialty area.

In the spirit of the Decade of Behavior initiative, FundSource is also an important element in fostering increased cooperation among the behavioral and social science disciplines. The Web site was made possible thanks to the generous support of the National Science Foundation and the American Psychological Association. *Take advantage of this powerful new search tool!* Visit FundSource via the Decade of Behavior homepage at **www.decadeofbehavior.org**, or look for the link on SIOP's Web page at www.siop.org/grants.html.

Call for Papers

Consulting Psychology Journal

The Division of Consulting Psychology (13) is seeking manuscripts for its quarterly publication *Consulting Psychology Journal: Practice and Research*. An official APA division journal, *CPJ* is masked reviewed and publishes articles in the following areas:

- theoretical and conceptual articles with implications for consulting
- original research regarding consultation
- in-depth reviews of research and literature on consulting practice
- case studies that demonstrate applications or critical issues
- articles on consultation practice development
- articles that address unique issues of consulting psychologists

Potential authors are encouraged to contact the editor for more information. Submissions (in triplicate) for review should be sent directly to **Richard Diedrich, PhD, Editor, The Hay Group, 116 Huntington Avenue, Boston, Massachusetts, 02116-5712, (617) 425-4540, fax (617) 425-0073.**

Call for Participation

Bay Area Applied Psychologists (BAAP)

The Bay Area Applied Psychologists (BAAP) offers a forum to discuss current topics relevant to I-O psychology and human resource management professionals. The group meets in the San Francisco Bay area, and these quarterly meetings provide an excellent opportunity to hear speakers discuss a variety of topics as well as interact with local colleagues.

If you are interested in becoming a member or in speaking at an upcoming meeting, please contact Holly Harrison at holly_harrison@gap.com or (650) 874-2134.

SIOP Conference attendees: Please contact any of the following BAAP committee members at the conference to learn more about the group:

Holly Harrison, Membership Coordinator, Michelle Donovan, Speaker Coordinator, Kathleen Mosier, Treasurer, or Dale Rose, Web site Coordinator. Check out our Web site at www.baaponline.org.

Announcement

Award Winners of the Society for General Psychology for Year 2001 and Call for Nominations for Awards of Year 2002

The Society for General Psychology, Division One of the American Psychological Association, announces its Year 2001 award winners who have been recognized for outstanding achievements in general psychology.

This year the winner of the William James Book Award is Michael Tomasello for his book *The Cultural Origins of Human Cognition,* which was published in 1999 by Harvard University Press. This award is for a recent book that serves to integrate material across psychological subfields or to provide coherence to the diverse subject matter of psychology.

The Year-2001 winner of the Ernest R. Hilgard Award for a Career Contribution to General Psychology is Murray Sidman. The winners of the George A. Miller Award for an Outstanding Recent Article in General Psychology are Jack Martin and Jeff Sugarman of Simon Fraser University for their article "Psychology's Reality Debate: A 'Levels of Reality' Approach," which appeared in the *Journal of Theoretical and Philosophical Psychology* in 1999 (177–194). In each case the awardees receive a certificate and a cash prize: $500 each for the Hilgard and Miller awards, and $1,000 for the William James Book Award. The winner of the competition to deliver the Year–2001 Arthur W. Staats Lecture for Unifying Psychology, who will receive an award of $1,000, will be determined and announced later.

For all of these awards, the focus is on the quality of the contribution and the linkages made between the diverse fields of psychological theory and research. The Society for General Psychology encourages the integration of knowledge across the subfields of psychology and the incorporation of contributions from other disciplines. The Society is looking for creative synthesis, the building of novel conceptual approaches, and a reach for new, integrated wholes. A match between the goals of the Society and the nominated work or person will be an important evaluation criterion. The Staats Award has a unification theme, recognizing significant contributions of any kind that go beyond mere efforts at coherence and serve to develop psychology as a unified science. The Staats Lecture will deal with how the awardee's work serves to unify psychology.

There are no restrictions on nominees, and self-nominations, as well as nominations by others, are encouraged for these awards. For the Hilgard Award and the Staats Award, nominators are asked to submit the candidate's name and vitae along with a detailed statement indicating why the nominee is a worthy candidate for the award and supporting letters from others who endorse the nomination.

For the Miller Award, nominations should include vitae of the author(s), four copies of the article being considered (which can be of any length but must be in print and have a post-1995 publication date), and a statement detailing the strength of the candidate article as an outstanding contribution to general psychology.

Nominations for the William James Award should include three copies of the book (dated post-1995 and available in print); the vitae of the author(s) and a one-page statement that explains the strengths of the submission as an integrative work and how it meets criteria established by the Society. Textbooks, analytic reviews, biographies, and examples of applications are generally discouraged.

Winners will be announced at the fall convention of the American Psychological Association the year of submission. Winners will be expected to give an invited address at the subsequent APA convention and also to provide a copy of the award address for inclusion in the newsletter of the Society.

All nominations and supporting materials for each award must be received on or before April 15, 2001. Nominations and materials for all awards and requests for further information should be directed to General Psychology Awards, c/o C. Alan Boneau, Department of Psychology, George Mason University, Fairfax, VA, 22030, phone (301) 320-3695, fax (301) 320-2845, e-mail aboneau@gmu.edu.

Call for Papers

The Kenneth E. Clark Research Award

The Center for Creative Leadership is sponsoring the Kenneth E. Clark Research Award to recognize outstanding unpublished papers by undergraduate and graduate students. The award is named in honor of the distinguished scholar and former Chief Executive Officer of the Center. The winner of this award will receive a prize of $1,500 and a trip to the Center to present the paper in a colloquium.

Submissions may be either empirically or conceptually based. Nontraditional and multidisciplinary approaches to research are welcomed. The paper should focus on some aspect of leadership or leadership development.

Submissions will be judged by the following criteria:

- The degree to which the paper addresses issues and trends that are significant to the study of leadership;

- The extent to which the paper shows consideration of the relevant theoretical and empirical literature;
- The extent to which the paper makes a conceptual or empirical contribution;
- The implications of the research for application to leadership identification and development.

Papers must be authored and submitted only by graduate or undergraduate students. Center staff and submissions to other Center awards are ineligible. Entrants must provide a letter from a faculty member certifying that the paper was written by a student. Entrants should submit four copies of an article-length paper. Electronic submissions will not be accepted. The name of the author(s) should appear only on the title page of the paper. The title page should also show the authors' affiliations, mailing addresses, and telephone numbers.

Papers will be reviewed anonymously by a panel of researchers associated with the Center. Papers are limited to 25 double-spaced pages, including title page, abstract, tables, figures, notes, and references. Papers above this limit will not be eligible for the Award and will be returned to authors unreviewed. Papers should be prepared according to current edition of the *Publication Manual of the American Psychological Association.*

In the absence of papers deemed deserving of the award, the award may be withheld. **Entries (accompanied by faculty letters) must be received by September 7, 2001.** The winning paper will be announced by November 9, 2001. Entries should be submitted to **Cynthia McCauley, PhD, Vice President, New Initiatives, Center for Creative Leadership, One Leadership Place, P.O. Box 26300, Greensboro, NC 27438-6300.**

POSITIONS AVAILABLE

SBC COMMUNICATIONS INC. (www.sbc.com), an international leader in the telecommunications industry, is accepting applications for predoctoral **INTERNSHIPS in HR RESEARCH.** The internship positions are located in either the corporate headquarters in San Antonio, Texas or in Hoffman Estates (Chicagoland), Illinois. SBC is made up of the merged companies of Southwestern Bell, Ameritech, Pacific Bell, Nevada Bell and Southern New England Telephone. SBC's subsidiaries provide local and long-distance phone service, wireless and data communications, paging, high-speed Internet access, cable and satellite television, security services, telecommunications equipment, and directory advertising and publishing. With over 200,000 employees, SBC is the 13th largest employer in the U.S. and is rated 12th in the *Fortune* 500.

Our internship program provides the opportunity to apply I-O training in a fast-paced corporate environment. Interns work in a team setting on a range of HR Research projects, including selection, performance management, and employee surveys. Qualified candidates should have completed or be close to completing their master's degree and be currently enrolled in a PhD program in I-O psychology, psychometrics, organizational behavior, or related discipline. Preference will be given to candidates who have prior work experience in job analysis, selection procedure validation and/or survey research. A strong background in research methods and statistics is desired. Experience using SPSS is a plus.

If you meet the above qualifications, have strong written and oral communication skills, and desire to work in a highly successful Fortune 500 company, please submit your resume and a list of at least 3 references to the address below. Internships are designed to last either 6 months or 1 year.

Please send materials to **Robert L. Hartford, PhD, SBC Communications Inc., 175 E Houston Street, Rm. 6-G-10, San Antonio, TX 78205-2212, e-mail rhartfo@corp.sbc.com, fax (210) 351-2883.**

FORD MOTOR COMPANY is accepting applications for predoctoral **INTERNSHIPS** in industrial-organizational psychology. Ford is a worldwide leader in automotive products and financial services with 325,000 employees, including 143,000 employees in U.S. automotive operations.

The internships are full time and last 12 months. Interns will be working with I-O psychologists and HR professionals on a variety of projects, most of which are international in scope. Projects include selection research, employee surveys, and organizational development. All positions are located in Dearborn, Michigan. Applicants must be enrolled in an I-O doctoral program and have completed a master's degree or be admitted to doctoral candidacy. Candidates should have experience in the following areas: selection research, construction of tests/surveys, and statistical analysis.

Familiarity with SPSS is preferred but not required. Experience with Web authoring or foreign language skills such as German, Spanish, or French is also preferred but not required. Ford is an Equal Employment Opportunity Employer committed to a culturally diverse workforce.

Interested applicants should submit a cover letter and resume to **Nick Mills, PhD, Organization Survey Services Manager, Ford Motor Company, 226-A1 WHQ, The American Road, Dearborn, MI 48121-1899, phone (313) 322-0505, fax (313) 323-8531, e-mail nmills@ford.com.**

INTERNATIONAL SURVEY RESEARCH (ISR), the leading global specialist provider of employee and management opinion surveys for national and international organizations, has openings for **ASSOCIATE PROJECT DIRECTORS** in Chicago, Illinois.

Our goal is to provide clients with powerful and focused intelligence that can be used to identify market opportunities, pinpoint organizational issues, and improve business performance.

Our 25 years of success in this challenging field provide an excellent opportunity for applied research and consulting with the world's largest and most complex organizations. Responsibilities include client liaison, survey design, data interpretation, reporting and some staff management.

Successful candidates at ISR demonstrate a strong academic background, excellent interpersonal skills, and high ethical standards. Qualified candidates should have

- A PhD in the behavioral or social sciences, I-O psychology, or OD
- Experience with organizational surveys
- Excellent interpersonal and communications skills
- A demonstrated ability to write business proposals, and give effective presentations
- Fluency in a second language is highly desirable
- Willingness to travel

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Interested candidates should send their letter of interest and resume to **Human Resources, Associate Project Director Search, International Survey Research, 303 E. Ohio St., Suite 2100, Chicago, IL 60611, fax (312) 828-9742 or by e-mail sara.handley@isrsurveys.com.** Web site: isrsurveys.com.

MELLON FINANCIAL CORP., a global financial services company with a bank at its core, is seeking to fill the newly created, highly visible position of **VICE PRESIDENT & CORPORATE MANAGER, LEADERSHIP DEVELOPMENT & SUCCESSION MANAGEMENT.** This position is responsible for Mellon's leadership development and succession management infrastructure.

The person we select will actively collaborate with the HR leadership team to align leadership development and succession management practices with related areas—such as, performance management, total rewards, strategic staffing, and so forth. S/he also will work with business unit managers to create continuity plans for key positions and to ensure program integration.

Specific responsibilities include leading the design and implementation of leader continuity processes, including high-potential development, talent reviews, and succession management; installing leadership development programs, such as 360-degree feedback, self-directed development, executive education, assignment management, and coaching; facilitating the implementation of the adopted infrastructure, leveraging external resources and technology-based solutions; and developing internal marketing campaigns to build understanding and acceptance of Mellon leadership standards. Candidates must have 7 to 10 years relevant work experience. A BA/BS is required; preference is given to candidates with advanced degrees in I-O psychology, OD, HR, or other related fields.

Successful candidates can operate as independent, self-sufficient professionals. They must demonstrate a proven track record in substantive program development with verified results. This includes translating business-planning priorities into leadership development and succession management requirements. Consequently, experience consulting with senior management is vital. Similarly, strong analytical, project management, presentation, and influence skills are required. Location: Pittsburgh, Pennsylvania.

Contact: Annie Livingston, VP–Talent Acquisition, Mellon Financial Corporation, One Mellon Center; 500 Grant Street, Pittsburgh, PA 15258, fax 412-236-6685, e-mail livingston.am@mellon.com.

MELLON FINANCIAL CORP., a global financial services company with a bank at its core, is seeking to fill the newly created, highly visible position of **VICE PRESIDENT & CORPORATE MANAGER, LEARNING & DEVELOPMENT.** This position is responsible for Mellon's core curriculum. The successful candidate will be a visionary who can rethink traditional education, learning, and development, integrating both instructor-led and distance-learning solutions.

Specific responsibilities include (a) defining and implementing a core curriculum, including related learning strategies, tactics, and plans; (b) installing the infrastructure needed to deliver upon the adopted approach; (c) leading the transition from classroom delivery to a distributed learning solution; (d) maximizing the corporation's learning investment, driving down the "cost per seat;" (e) managing the outsourcing contract and relationship; and (f) leading a community-of-practice with internal practitioners from varied geographies and business lines.

The ideal candidate will have a proven track record in linking learning and development solutions to business strategies and workforce competency needs. S/he will have worked in large, fast-paced organizations, having acquired strong business acumen along the way. The ability to work collaboratively with senior managers, external consultants, and other HR professionals is essential. Success will entail creating a virtual team of internal practitioners and consultants in practice. A BA/BS with 5 to 7 years relevant experience, or master's with 3 to 5 years, is required. Preference is given to candidates with advanced degrees (coursework) in I-O psychology, instructional systems, learning theory, eLearning, performance technology, human resource development, and/or organization development. Location: Pittsburgh, Pennsylvania.

Contact: Annie Livingston, VP–Talent Acquisition, Mellon Financial Corporation, One Mellon Center; 500 Grant Street, Pittsburgh, PA 15258, fax 412-236-6685, e-mail livingston.am@mellon.com.

Society for Industrial and Organizational Psychology

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The Industrial-Organizational Psychologist (TIP) is the official publication of the Society for Industrial and Organizational Psychology, Inc., Division 14 of the American Psychological Association, and an organizational affiliate of the American Psychological Society. *TIP* is distributed four times a year to more than 6,200 Society members. The Society's annual Convention Program is distributed in the spring to the same group. Members receiving both publications include academicians and professional practitioners in the field. *TIP* is also sent to individual and institutional subscribers. Current circulation is 6,300 copies per issue.

Advertising may be purchased in *TIP* in units as large as two pages and as small as one-half page. Position available ads can be published in *TIP* for a charge of $86.00 for less than 200 words or $102.00 for 200–300 words. Please submit position available ads to be published in *TIP* by e-mail. Positions available and resumes may also be posted on the SIOP Web site in JobNet. For information or placement of ads, contact the **SIOP Administrative Office, 520 Ordway Avenue, PO Box 87, Bowling Green, OH 43402, Lhakel@ siop.bgsu.edu, (419) 353-0032.**

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One page	$305	$225	7-1/4"	x	4-1/4"
Half page	$235	$190	3-1/4"	x	4-1/4"
Inside back cover	$480	$330	7-1/4"	x	4-1/4"
Back cover	$510	$370	8-1/2"	x	5-1/2"

Publishing Information

TIP is published four times a year: July, October, January, April. Respective closing dates for advertising are May 15, August 15, November 15, and February 15. *TIP* is a 5-1/2" x 8-1/2" booklet.

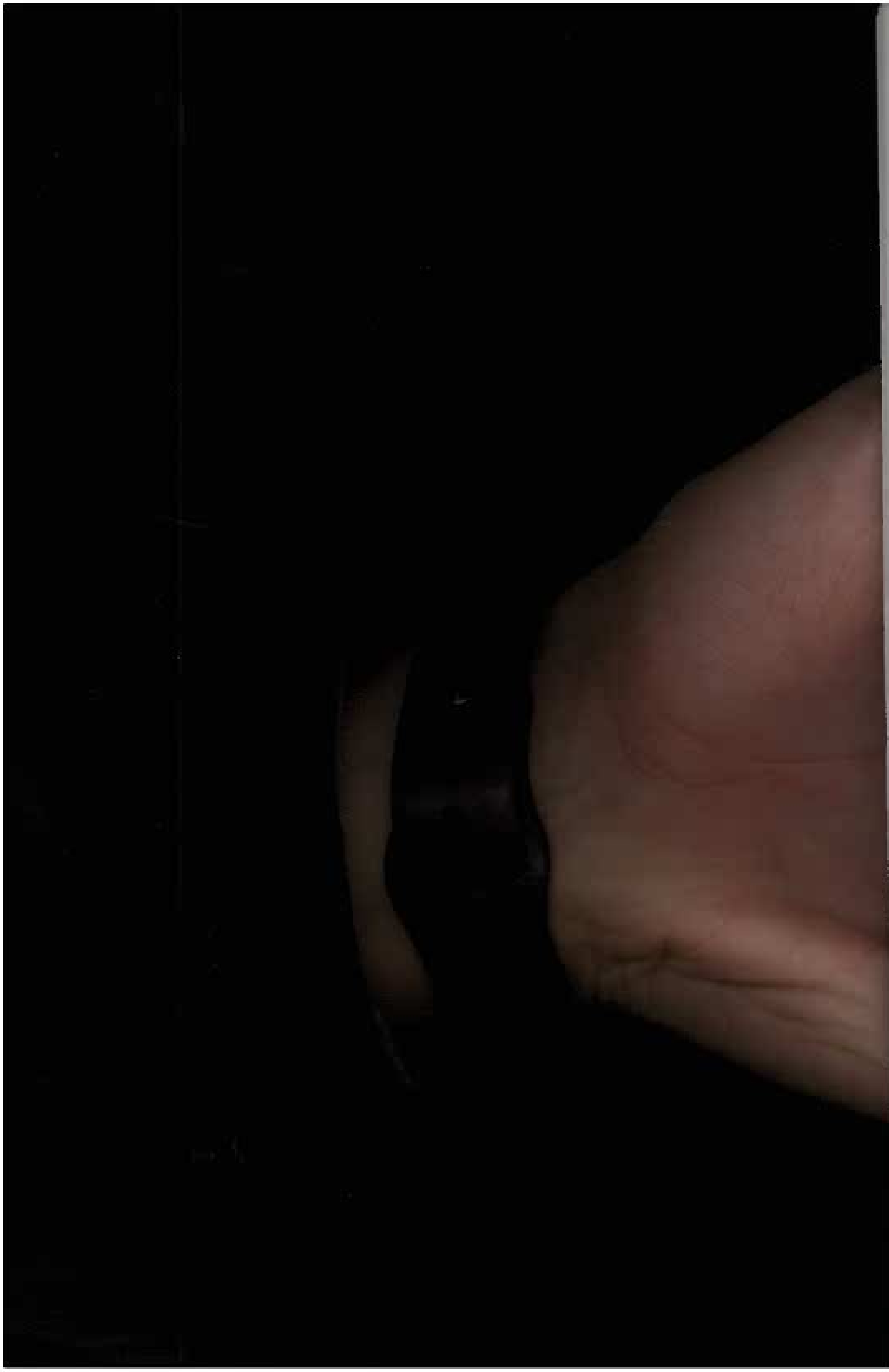
Annual Conference Program

Advertising is available in the annual Conference Program. Submission of display ads is due into the SIOP Administrative Office by January 15. The Program is published in March, with a closing date of January 15. The Conference Program is an 8-1/2" x 11" booklet.

Size of ad	*Price*	*Vertical*		*Horizontal*
Two-page spread	$375	9"	x	6-1/2"
Full page	$225	9"	x	6-1/2"
Half page	$190	4-1/4"	x	6-1/2"
Quarter page	$150	4-1/4"	x	6-1/2"

Advertisement Submission Format

Advertising for SIOP's printed publications should be submitted in electronic format. We can process camera-ready art or film, but we prefer electronic files. Acceptable formats are: EPS, TIF, PDF, Illustrator with fonts outlined, Photoshop, or QuarkXpress (Mac or Windows) files with fonts and graphics provided. Electronic files can be submitted via the Internet. Please provide a hard copy of the file (mailed or faxed) in addition to the electronic file. Call the Administrative Office if you have questions.



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- Customers
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Multi-Constituency Surveys:

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A Cure for the Common Survey