Chair’s Report

Endowment Efforts

We are beginning a new year with our usual contingent of new and returning graduate students and another record enrollment of undergraduates at the university and in our courses. In addition, we are welcoming seven new faculty members and we welcome the return of Professor Tom Carr who spent the last two years at Vanderbilt. More about the background and interests of these new faculty members is contained in the remainder of the newsletter.

I am sure all of you have read or heard of the budgetary problems and difficult economy we face in Michigan. We are appreciative of the fact that the Michigan legislature has chosen not to cut the higher education budget at this difficult time. However, we generally compare ourselves with other Big Ten universities, many of whom received double digit increases in the state contribution to their funding, and the lack of cuts in funding for Michigan higher education continues to affect our position in the Big Ten and among other public universities. Moreover, all public universities are part of a general trend that has occurred over the last quarter century in which public funding for universities has declined as a percentage of total university budgets so that now we receive less than half our funding from state taxes.

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Locally, in our department, we are faced with a situation in which we receive very little in recurring dollars for anything other than staff and faculty salaries. This means that all supplies, travel, new faculty recruiting, computers, etc. must come from other sources. We make up this shortfall now in a variety of ways. We have begun teaching many of our courses online to off campus students. A good portion of the tuition dollars from these efforts are returned to the department. We also get some money when faculty are supported on research grants, take year-long sabbaticals, or accept administrative positions at the university.

These “solutions” are now an important part of our budget, but they are short term and uncertain from year to year. One major area of concern is maintaining the excellent standing of our graduate programs. Available support for graduate students has declined consistently in absolute dollars at the same time that we have been faced with increased stipends, health insurance costs, and the need to make multi-year offers to students to stay competitive with other institutions.

We would like your help in another more “permanent” solution to the problem of funding, in particular, funding of graduate students. Over the next several years, we hope to establish graduate student endowments. The interest from these endowments would support graduate students fellowships—at this point each such endowment, if fully funded, would require between $350,000 and $400,000. To establish an endowment, we need an initial “investment” of $30,000 and faculty members have made contributions toward the establishment of one of these endowed fellowships.

We seek future contributions from our faculty members, alumni, and friends to fully endow this first fellowship. Clearly, this is an ambitious goal, but this is part of a proactive effort on our part to deal with a financial situation that is radically different than the past when we could depend on public financing. We hope you will join us in this important and worthwhile investment. If you are interested in helping, there are many alternatives that could be explored with the College Development Office (Sarah Blom: 517-432-1802 or blom@msu.edu) or with me if you have ideas. Certainly, this is a large amount of money, but it does not have to come from one person and does not have to occur at this time. Our perspective is long term.

Finally, it is also important to note that we appreciate your interest and support whether monetary or otherwise.
Mark Becker - Cognitive Psychology

After receiving my B.S. in psychology, I was torn between pursuing a career in law and a career in psychology. I carefully considered my options (while skiing in Colorado and sailing in the Caribbean) for a few years. Although I came within a few days of beginning law school at University of Chicago, I eventually made the “right” decision and chose to pursue my Ph.D. in Psychology at University of California, San Diego.

I began as a perceptual psychologist; my master’s work investigated how backwards visual masking could operate as a motion de-blurring mechanism. For my dissertation, I switched to investigating the complexity of the representations that people form while viewing a scene. One of the conclusions of my dissertation was that the capacity of immediately available conscious visual representations is extremely limited. At any instant, people are explicitly aware of only the three or four items to which they are attending. Given the important role that scarce attentional resources play in maintaining visual representations, it would seem critical to efficiently allocate these resources to relevant portions of a scene rather than squandering them on irrelevant information. This assumption suggests that the allocation system must be working in a highly organized and informed manner. My recent work, performed as a faculty fellow at UC, San Diego and then as an assistant professor at Lewis & Clark College, has focused on understanding the mechanisms underlying this attentional allocation system.

Although low-level visual saliency certainly plays a role in the allocation process, my research investigates the extent to which more complex sources of information are capable of influencing the initial allocation of attention within a scene. To investigate this question, I track eye movements and use a number of behavioral methods, including attentional cuing, change and inattentional blindness, and visual search paradigms. My work has proceeded along three parallel lines. One line investigates how emotionally charged information influences the allocation of attention. A second investigates the processes by which memory, both long term visual memory and working memory, guides attention towards behaviorally relevant locations and objects within a scene. The third line investigates the extent to which pre-attentive analysis includes object identity information that can be used to guide the allocation of attention.

This body of work suggests that multiple sources of information are capable of influencing the allocation of attention. Interestingly, these different sources of information seem to affect the allocation process in very different ways and may be influencing the process via different mechanisms. For instance, long term memory guides attention most directly to specific locations within a scene, but location information is less important within the system that is activated by the presence of a negative facial expression.

I believe that a better understanding of the mechanisms which guide attention is essential to understanding the perceptual process. One’s interpretations and experiences of the world may well be influenced by which aspects of it he or she attends to; whether the glass is half full or half empty depends on the part of the glass to which one attends. Thus, I believe that this is an important, interesting, and active area of research that will continue to provide fruitful results. My goal is to identify the types of information that influence the allocation of attention and to delineate the mechanism by which separate sources of information interact to determine the allocation of attention.

After five years at a liberal arts college in which the focus was almost exclusively on undergraduate instruction, I am excited to be back at a university that also emphasizes research and graduate instruction. It is great to be here and I look forward to being an active and productive member of the cognitive interest group and the department.
My career in autism research began during college when I worked as a therapist in a home-based treatment program. I then spent two years working with preschool and school-aged children with autism at Emory University. In these experiences, I saw the overwhelming benefits of effective early intervention services as well as a large number of ineffective and potentially detrimental “treatments” which were advocated for children with autism. This led to my interest in treatment research in this area. I completed my Ph.D. in Experimental Psychology at the University of California, San Diego and then a clinical post-doctoral fellowship through the Leadership Education in Neurodevelopmental and Related Disabilities (LEND) program at Oregon Health & Science University in Portland, Oregon. While in Portland, I was hired to direct the Autism Treatment & Research Program at the Hearing & Speech Institute, a clinic specializing in the diagnosis and treatment of communication disorders. I then spent two years as a visiting faculty member at Lewis & Clark College.

The significant needs of children with autism and their families have motivated me to identify interventions that are more effective and efficient than those currently available. I am particularly interested in teaching early emerging social-communication skills as a means of increasing the efficacy of intervention. In typical development, social-communication skills emerge in a predictable pattern, with nonverbal skills, such as imitation and joint attention, preceding language development and theory of mind. Children with autism exhibit significant impairment in these early, non-verbal social-communication skills, as well as delayed and deviant language and social development, suggesting that early social-communication deficits in autism may disrupt the development of more advanced social communication. If we can address these early social-communication deficits, we may be able to teach social communication more efficiently.

One early emerging skill which is fundamental to the development of social and language skills is imitation. Recent research suggests that children with autism may be particularly impaired in their use of imitation for social rather than learning purposes. I am interested in further examining this question as well as evaluating the role that the social use of imitation plays in the development of more advanced social-communication skills. In addition, I am interested in the developmental consequences of teaching the social use of imitation skills to young children with autism. To this end, I have been evaluating the efficacy of a novel intervention that teaches imitation within a social context. This line of research should yield important information regarding the role that imitation plays in social-communication development in autism as well as which children respond best to this type of early, social-communication intervention.

I have also been interested in translational research, which examines the effectiveness of interventions as they are implemented in the community. One intervention approach, parent training, has been shown to be efficacious in laboratory settings, leading to increased generalization and maintenance of child skills and decreased parent stress. However, it is rarely available in public school settings, where most children with autism receive services. Thus, my colleague and I developed a parent training model that could be used as part of the early childhood special education curriculum for children with autism in the public schools. We are in the process of examining the effectiveness of this model as implemented by teachers in public early intervention and early childhood special education settings.

I am very excited about joining the Psychology Department and look forward to developing my research program at MSU.
Carlos Navarrete - Social/Personality Psychology

I’m a native-born Los Angeleno of Mexican-American descent, and was educated from kindergarten through graduate school in Southern California. I received my Ph.D. in evolutionary anthropology from UCLA in 2004, and was a NSF postdoctoral fellow in social psychology at UCLA (2004-2005) and at Harvard University (2006-2007).

I adopt an integrative perspective to the study of intergroup relations in which I employ methods primarily from social psychology, but incorporate theoretical insights from emerging perspectives in behavioral economics and evolutionary biology. Quite broadly, I’m interested in the psychology of intergroup relations—a domain that includes topics such as discrimination, social inequality, within group cooperation and between group enmity. My methodological toolbox spans the social science gamut from ethnographic textual analyses, archival research, online surveys, questionnaire-style lab experiments, behavioral observations, and most recently, neurophysiological measurement.

My current research involves the intersection of race and gender as a nexus for understanding the psychological underpinnings of prejudice and discrimination. At its conceptual roots, my perspective explores notions such as individual learning and the social transmission of stereotypes and how they interact with innate decision rules and categorization processes to generate automatic and persistent anxious responses to people of different social groups other than one’s own.

I am currently using a fear conditioning paradigm to explore the possibility that xenophobia (or fear of outgroups) is at least in part a product of our evolved psychology that has been designed by natural selection to avoid dangerous situations and entities. For example, previous researchers have found that in monkey and human subjects, conditioned fear responses resist extinction towards targets such as spiders and snakes, but that conditioned fear responses towards stimuli not danger-relevant in an evolutionary sense (e.g. birds or butterflies) are extinguished quite easily. This research shows the importance of how experience and learning are not opposed to instinct, but that innate nervous system responses can latch onto learned categories in a non-random, adaptive way. My work investigates these evolved learning biases with respect to the social categories of ingroup/outgroup and male/female.

On the assumption that humans might have evolved learning biases towards some targets more than others, my colleagues and I have shown that fear responses equally conditioned to racial ingroup and outgroup targets are extinguished unequally, such that learned fear persists and resists extinction towards targets of a racial outgroup but not an ingroup. More importantly, we’ve also shown that this fear extinction bias extends only towards males of the outgroup but not females—as outgroup males are likely to have posed the greatest physical threat throughout our evolutionary history.

The effects in the studies hold for white subjects with African American targets and African American subjects towards white targets. Furthermore, whether subjects endorsed cultural stereotypes of the racial outgroup did not effect their levels of residual fear. We plan to conduct further manipulations of the ingroup and outgroup targets in future experiments including age, socioeconomic status, nationality, and even minimally defined social categorizations (e.g. artistic style or soft drink preferences) to test the limits of the generalizability of these findings. In future studies, we hope to find key developmental or cognitive attributes of the individual that mitigate the nervous system responses that underlie xenophobia. Such findings would be an important step toward allaying or someday ending one of humanity’s most enduring problems.
Some days – particularly when grants, publications, and teaching aren’t going as planned – I wonder why I didn’t open a bike shop. Indeed through high school and college, I was well on the way to realizing that dream. Then while at the University of Iowa I took a class on the history of economic thought and discovered the writings of Herbert Simon talking about bounded rationality and how economic theories of decision making completely disregard the cognitive capabilities of humans. I was hooked. How come economists didn’t realize this earlier? And why weren’t psychologists capitalizing on this idea? Today, looking back, my training, my work, and my research program largely reflect this realization.

The questions regarding bounded rationality led me to the field of judgment and decision making, which, in turn, led me to the University of Maryland’s cognitive psychology program. After earning my Ph.D. at Maryland, I took a research scientist position at the University of Basel in Switzerland. That was the first place that really challenged me to apply what I had learned about cognitive psychology to address questions regarding the cognitive capabilities of decision makers. For example, at Basel, I grew interested in how people use recognition memory to make inferential decisions. Another question I pursued was how people make decisions after learning from experience, like relying on experience to choose a morning traffic route. After two years of enjoying wondrous hiking, skiing, chocolate, wine, and cheese, I took a post doctoral position in the cognitive science program at Indiana University. There I became interested in using stochastic and dynamic models of cognition to better understand the cognitive architecture of confidence judgments, and commonly used decision rules or heuristics.

Now at MSU, I intend to cultivate a research program that exists in the confluence of the cognitive and decision sciences. At this intersection, I seek to develop formal theories of judgment and decision making built from principles of cognition rather than the axioms of rationality. Questions my lab – the Laboratory for Cognitive & Decision Sciences – will address include

1) How do people make judgments and decisions about everyday life events?
2) How do people use the cognitive processes of learning and memory to make these judgments?
3) Why do people take the risks they take and do risk seeking people (e.g., people who use illegal drugs) make decisions differently than more risk averse people?

I am excited to be a member of such an exciting and invigorating community here at Michigan State and the larger East Lansing community. And while my day dreams about opening a bike shop are becoming few and far between, you can still catch me during my free time working on my latest bicycle repair project or taking a 50 mile ride. Come join me if you like.

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1 Simon talked about the limits and limitation of humans (see for example, Simon, 1990), but I think the word capabilities is more appropriate.
Susan Ravizza - Cognitive Psychology

I have always been interested in human cognition, and intrigued by the cognitive failures that are so common in everyday life. While working in the library as an undergraduate, one of my favorite jobs was to find missing books, and I put a lot of thought into how people could have misplaced these books by confusing letters or mis-shelving them based on size. Errors can occur when normal cognitive processes go awry, but they can also occur when the neural architecture is abnormal. Driven by my interest in deconstructing failures of cognition and my fascination with the link between brain and behavior, I decided to get a Ph.D. at UC Berkeley in cognitive psychology and study the effects of neurological disorders on higher cognition. I focused on two cognitive abilities that allow us to successfully perform many everyday tasks – working memory and task switching. Further training in fMRI techniques at the University of Pittsburgh and UC Davis has allowed me to investigate these abilities in novel ways.

The focus of my research program is to define the mechanisms of working memory and task switching in a way that fits both behavioral and neural evidence. Essentially, I emphasize both words in the term “cognitive neuroscience;” that is, I attempt to refine theories of working memory and task switching in cognitive psychology by determining whether its claims are supported by models of brain functioning. In the same way, I test predictions about the functions of neural regions based on theories provided by cognitive psychology.

For example, many imaging studies of working memory have been designed to find neural regions that correspond to processes defined by the Multiple Component model of Baddeley and Hitch (1974). In other words, investigators determine which region acts as a phonological short-term store and which is responsible for articulatory rehearsal. My research suggests that the Multiple Component model has a difficult time accounting for the pattern of neural response in verbal working memory tasks, and that imaging experiments may help in adjudicating between models of working memory.

Similarly, most studies of task switching do not take into account the type of switch being performed and, instead, treat it as a unitary process. However, my research demonstrates that both behavioral effects and neural engagement differ depending on whether the switch is between rules or sets of visually presented features. This implies that the cognitive process underlying our ability to switch tasks is different depending on the type of switch performed.

My goals require that I use a variety of convergent methods (i.e., behavioral, neuropsychological, and fMRI) in order to investigate my questions comprehensively. I will continue to use all these methods at MSU and I am looking forward to interacting with student and faculty here!
Undergraduate News

PSYCHFEST 2007

PSYCHFEST 2007 was a great success! The event was held at the MSU Spartan Stadium and housed more than 80 different community agencies, MSU resources, and graduate programs from all over the state. The event was held on September 26 from 3 – 6pm! The hundreds of students that attended found PSYCHFEST 2007 to be very informative and they were glad that the department offered such an event. Many students were able to find volunteer experiences, internships, study abroad destinations and great networking with potential graduate programs. Our own PSY faculty attended the event and the students raved about the connections and conversations they had. This year’s event ended with a “tailgate” for the vendors to help create connections between on-campus offices, off-campus agencies and the PSY department advisors and faculty.
Recent Faculty Awards

NiCole Buchanan was awarded the 2007 Association for Women in Psychology’s Women of Color Award for empirical research publications that “contribute significantly to the understanding of the psychology of women of color.”

Rebecca Campbell was notified that she’s received the 2008 Distinguished Contributions to Psychology in the Public Interest Award Early Career from the American Psychological Association.


Bill Davidson received the 2007 “Distinguished Contributions to Theory and Research in Community Psychology” Award from Division 27 of the American Psychological Association.

Kevin Ford received a “Partner in Safety” award from the Michigan Center for Truck Safety.
Recent Faculty Grants

**Rebecca Campbell**, Angela Kennedy and **Deborah Bybee** were awarded a three year National Institute of Justice Grant entitled “Adolescent Sexual Assault Victims’ Experiences with SANE-SARTs and the Criminal Justice System.”

**Tom Carr**, with colleagues at Vanderbilt University, received a three year National Science Foundation grant: “Design And Evaluation Of Spatially Compelling Virtual Environments.”

**Bill Davidson** and Sean Hankins received funding from Ingham County, Michigan for the Adolescent Diversion Project.

**Bill Davidson** and Tayo Onifade received funding from Ingham County, Michigan for the project “Advances in Risk Assessment.”

**Kevin Ford** received a National Institute of Justice, Community-Oriented Policing Division Grant (with colleagues from the School of Criminal Justice Outreach) entitled “Enhancing Problem Solving Skills of Police Officers.”

**Joel Nigg** received a new five-year R01 grant from the National Institute of Mental Health to study child ADHD in a longitudinal design: “Heterogeneity of Mechanism and Pathway in Child ADHD.”

**Fred Oswald** received a grant from the U.S. Navy: “Practical Recommendations for Trait-Level Estimation in the Navy Computer Adapted Personality Scales.”

**Fred Oswald** and **Zach Hambrick** received a two year grant from the U.S. Navy called “SYRUS – Individual Differences in Multitasking Performance.”

**Margaret Semrud-Clikeman** was awarded a 3 year grant from a private foundation to use neuroimaging and neuropsychology to study nonverbal learning disabilities and correlates of social competence.

**Laura Smale** and **Tony Nunez** were awarded a three-year NIMH grant entitled “The Psychobiology Of Rhythms In Diurnal Mammals.”

**Cris Sullivan, Rebecca Campbell, Deb Bybee**, & Celia Wills were awarded a five year National Institute of Mental Health R24 grant entitled “Developing a Violence Against Women Research Infrastructure in a Field Setting.”
Recent Graduate Student Publications


The Department of Psychology would like to hear from you.

Please send us information about your professional and personal achievements.

E-mail: psygrad@msu.edu
Or
Fax: 517-432-2476

Recent Graduate Student Publications

(continued)


Remembrance of Ray Frankmann

We were saddened to hear that Ray Frankmann died July 18, 2007. Ray received his A.B. degree from Harvard in 1950 in Mathematics and his Ph.D. from Indiana University in 1959 in Experimental Psychology and Statistics. He worked as Assistant Professor and Associate Professor at University of Illinois and University of Houston before joining our faculty in 1969. Ray published papers on how humans process probabilistic information in various peer-reviewed outlets. For many years, Ray taught the initial course in our graduate Statistics sequence (Psy 815). Consequently, most of the graduate students for a 25 year period received one of their first graduate courses from Dr. Frankmann. Ray probably knew every analysis of variance design ever used and had his own set of algorithms that he used to produce error terms by which to test the various effects in these designs. He served the often thankless role of "methods" person on many graduate student committees between 1969 and his retirement in 1993. Ray was also Associate Chair of the department for many years.

Please join us in extending our sympathy to his wife, Jan, and his three children and their families.

Support Your Alma Mater

Higher education faces a fiscal crisis and MSU is no exception. Now, more than ever, we need the financial support of our friends and alumni. If you visit our web page (http://psychology.msu.edu), you will see a link for Direct Giving. When you click this link, you will be on your way to a secure, encrypted, University Development page that will allow you to make a credit card donation to the Psychology Department at MSU. You can give to the department or to one of the six new funds to support a specific interest group.

Thanks for your generosity.