

Psychology News

Unique Collaboration in Social Area

One of the distinguishing features of our department's social psychology area is a unique lab group known as CUSP, the CU Stereotyping and Prejudice Lab. While some psychology departments might have one or two faculty members doing research on stereotyping, our department has five faculty and three research associates keenly pursuing the subject. The ability to organize as one lab allows a level of collaboration rarely seen elsewhere. It also gives interested students the opportunity to work with a variety of faculty. The strength of this concentration and collaboration has produced acclaimed research and wide renown in this area of interest.

The CUSP Lab includes Professors Charles Judd, Bernadette Park, Irene Blair, Tiffany Ito and Josh Correll. It also has several postdoctoral research associates (Drs. Erika Henry, Chris Loersch and Jane Stout) and a solid group of industrious graduate students and research assistants. Lab members have diverse interests in the field of stereotyping but share a common framework: social cognition, the study of how people process and use social information related to groups or other individuals. It is now considered the dominant approach in stereotyping research; in fact, Professors Judd and Park were leaders in its development.

Of particular interest to CUSP researchers is the concept of implicit bias, the unintentional attribution of particular qualities to members of social groups. Those studying implicit bias as a cognitive process often focus



on the mind's associative network and measure the speed with which associations take place. Through measuring reaction times, which reflect ease of processing and therefore strength of associations, researchers can identify implicit biases that participants may be unwilling or unable to express in more explicit forms (for example, as answers on a questionnaire).

Here is a sample of some of the current research and findings from members of the CUSP Lab:

Professor Bernadette Park's work focuses on the difficulties that occur when social identities or roles conflict with each other. She investigated the ease with which two separate social identities, parent and worker, could be activated (brought to mind) concurrently. Difficulty with concurrent activation would indicate a conflict between identities. Professor Park studied students training for professional careers. She found that when asked to think about goals in a particular domain, women tended to switch back and forth between identities rather than activating both identities simultaneously. **(Continued on Page 3)**

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Message from the Chair



Sometimes it is hard to figure out what to write about. The department is in great shape: people are productive, grants are funded, classes are humming, students are stressed out (but getting great educational experiences). So it gets boring to repeat this same message over and over again. So I won't (Oops, I just did).

As always there is a lot going on every day. As a result of our program review we are getting ready to implement exciting changes to our undergraduate curriculum. These changes will make the progression of courses required for the major more logical: building from broad and simple to focused and complex as one moves from freshman, through sophomore and junior to senior level classes. Additional rigor and skills are being added by

splitting our current statistics course into a two-course sequence: Introduction to Statistics and Introduction to Experimental Design and Data Analysis. Although we have a challenging number of majors (around 2,700 at this writing), one benefit of these large numbers is that there is a great amount of enthusiasm and skill among them. Thus by reorganizing our curriculum and adding some new courses we will be better able to satisfy the needs and interests of these students.

The past two months have seen a stream of amazing job candidates come to visit the department. We have been given permission to search for two new tenure-track faculty members: one in clinical psychology and one in behavioral neuroscience. In addition, the Institute of Cognitive Science and the Institute for Behavioral Genetics are conducting four faculty searches with the most likely candidates being people who would become members of our department. Since October 2012, we have interviewed twenty job candidates. The process is drawing to completion. In our next newsletter we hope to introduce you to up to six (!) new members of our faculty. All of these new people will be contributing to our undergraduate and graduate curricula as well as engaging in state-of-the-art research in their fields of specialization. These new faculty will certainly help relieve the strain we have been under in trying to serve the large demand by undergraduates for our courses.

The death of our colleague, Dave Chiszar, has touched many people in and outside of the department. Please read the tribute to him on page 6 to understand the impact he has had on students over the last forty years. As always, we look forward to hearing from all of you graduates of CU who were touched by your experiences in our department. One continuing strength of our department is the participation of undergraduates in many faculty laboratories and research programs. I would like to hear from you describing your experiences. We are looking to expand the opportunities that undergrads have to get involved with research while here at CU, and your experiences will help guide us. A coming issue of this newsletter will focus on the role of undergraduates in the research activity of the department.

—Lew Harvey

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Unique Collaboration in Social Area (continued from page 1)

This identity tradeoff was found to be stressful and led to a depletion of executive control resources. Men, on the other hand, strongly activated their career identity with weaker concurrent activation of their parent identity, and did not suffer a depletion of executive control in the process. “Prototypic representations of the ideal mom and ideal professional in many ways directly oppose one another. This generates conflict for women in terms of identity that is not present for men,” says Professor Park. “Women experience compromised outcomes both in terms of family formation and professional achievement, we argue in part due to this identity conflict.”

One of **Professor Tiffany Ito’s** research projects examines how gender stereotypes influence women’s performance in a math and science environment. Her work is based on the concept of stereotype threat: the fear of confirming a negative stereotype. This fear has been found to decrease a sense of belonging and take up cognitive resources that could otherwise be used for learning and retrieving material. Professor Ito wondered if stereotype threat would decrease when a student’s sense of belonging increases. In her study, she asked CU students in an undergraduate introductory science class to participate in a brief writing exercise. In some cases, the instructions for writing the essays were designed to be self-affirming and support a sense of belonging. She then followed these students for the rest of the semester and looked at their final grades. Men on average get higher grades than women in these classes, but the women who wrote the self-affirming essays had grades as high as the men’s. This finding is important, Professor Ito says, because “the women in these classes are good at and interested in math and science. The data suggest that negative cultural stereotypes have an impact on how well they do in the class. So it’s important to figure out how to change their environment so they can show their ability and feel good about pursuing these fields.”

Professor Josh Correll is interested in the question of association between race and threat. His research considers racial bias in relation to groups often associated with crime and violence. Most of his work is on “decisions to shoot” made by police officers and the general population. His studies used video games to present pictures of Black and White individuals, some holding a gun, some unarmed, with the task of “shooting” only armed individuals. With both police officers and the general population, he found a pattern of racial bias as indicated by a faster response time in the decision to shoot Black as opposed to White suspects. His research also showed that police officers outperform the general population in several ways: they

are faster and more likely to make an accurate decision and, critically, police showed less bias in their error rates (though they showed very clear evidence of bias in their response times). This seems to indicate that they were activating stereotypes but not acting on them; they were able to control their use of stereotypes in this laboratory setting presumably because of their training. However, it may not be as easy to implement that control in a real-life, high-stakes situation. Professor Correll believes that it’s meaningful to do research that can help us understand important issues in the real world and then effectively change them for the better. He notes, “Research can look abstract or esoteric, but if we can get a handle on those processes in the laboratory, it becomes possible to make real contributions to discussions around public policy.”

Professor Irene Blair examines the potential for stereotyping and prejudice to influence the quality of health care that patients receive. Past research has shown that Whites fare better than ethnic minorities in terms of health and quality of health care, even with equal access to health care. Professor Blair is interested in whether and how implicit bias may influence this discrepancy. Her research measured primary care clinicians’ implicit ethnic and racial biases in multiple medical settings, finding that the clinicians had levels of bias against Blacks and Latinos similar to the broader population. Professor Blair then studied patients’ perceptions of these clinicians in terms of patient-centeredness (the clinician’s ability to respect patients’ needs and preferences, and honor their cultural traditions and values). She found that clinicians with more implicit bias were seen as less patient-centered by their Black patients, reflecting that patients are sensitive to implicit bias in their clinical interactions. She is now evaluating whether such implicit bias affects quality of health care and the health of the patient.

Professor Charles Judd’s primary focus is data analysis. In addition to generating many influential research projects of his own, he has been instrumental in developing the state-of-the-art data analytic techniques and elegant methodology that CUSP researchers now use, and has had many collaborations with others in the lab using his skill in that area. “All of the work we do in the lab depends on solid data, based on rigorous research designs and appropriate data-analytic procedures,” he says. “It’s crucial that conclusions we reach about these socially important phenomena be based on the best data possible, analyzed in the best and most compelling manner possible. Having solid data and being convinced that the data we’re using allow us to reach the conclusions we reach are really important aspects of research.”

—*Alicia Segal*

Research News

EEG Explorations of Memory, Perception, and Expertise

by Professor Tim Curran

“Her face is familiar, but where do I know her from?” We have all asked ourselves this, which reveals something about the different processes that allow our brains to recognize previous encounters. Our laboratory uses electroencephalogram (EEG) recordings to differentiate brain processes that allow us to recognize someone or something as familiar (“I know her face”), versus those that allow us to recollect information such as names and other specific details from previous experiences. EEG recording is especially good at providing information about the timing of underlying brain processes, and has shown that our brain assesses familiarity much faster than it is able to recollect specific details.

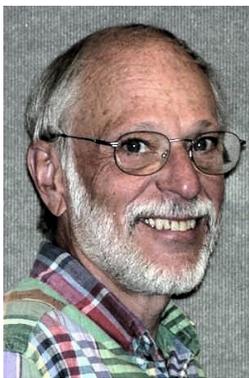
In other research, we are examining how expertise in particular domains (as shown by bird watchers, dog show judges, car buffs, etc.) influences our perception and memory of objects within those domains. Again, EEG recordings allow us to examine the timing of the influences of expertise. Expertise appears to enhance very early perceptual processes that are engaged in less than a fifth of a second after seeing something. This research suggests that extensive experience with identifying certain visual objects actually changes the way in which we perceive those objects. In other words, a bird watcher actually “sees” birds differently from the rest of us.

Expertise not only influences our perceptual abilities, but also influences our memory for objects of expertise. Bird watchers are better than the rest of us at remembering birds, car experts are better at remembering cars, etc. Our research suggests that these memory advantages arise from more efficient learning processes as well as stronger feelings of familiarity and more detailed recollections when experts’ memories are tested. We have found that effects of expertise on memory are very similar to the well-known phenomenon that we are better at remembering people’s faces when they are from our own racial group compared to other races. Because this own-race memory advantage is very similar to expertise effects we have observed, both in terms of memory performance and EEG recordings, our results support the perspective that the own-race advantage is at least partially due to the observation that most of us have greater experience with own-race than other-race faces.



Current Research Interests

by Professor Steve Maier



Dr. Linda R. Watkins and I run a large joint laboratory that involves roughly forty people (research associates, postdocs, graduate students, undergrads, and techs) that is supported by about a dozen research grants. This means that we explore a relatively large number of different problems, and we do so using a diverse array of techniques (molecular to behavioral) at multiple levels of analysis (tissue culture to whole organism).

Although it is a joint lab in which all projects are collaborative, Linda and I do tend to give primary focus to different projects. My passions revolve around two unrelated issues. The first concerns an understanding of the psychological variables that modulate the behavioral, neurochemical, physiological, endocrine, and immune impacts of adverse events, and the neural mediation by which these variables operate. The variable most studied is the behavioral control that the organism (rats to humans) can exert over adverse events, with the major idea being that the presence of control is detected by circuitry in the medial prefrontal cortex and

dorsal striatum, with direct projections from the medial prefrontal cortex then inhibiting brainstem and limbic structures that respond to adverse events.

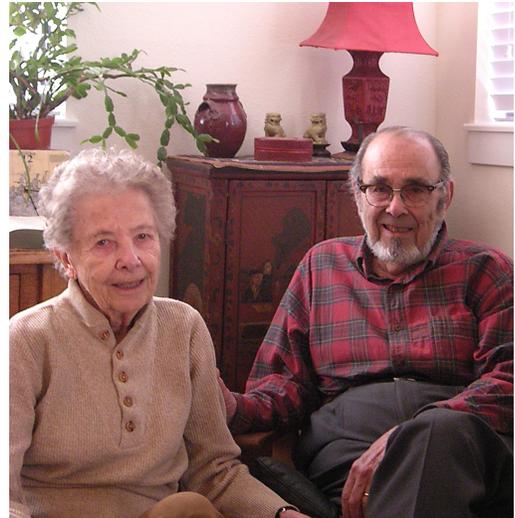
My second broad interest concerns how signaling from the immune system to the central nervous system modulates cognition, affect, and action, and the neural mechanisms by which these influences occur. The core ideas are that communication pathways which we have documented ultimately activate immune cells in the brain (microglia), which in turn release a variety of inflammatory mediators (e.g., cytokines) that then modify neural activity in predictable ways that regulate cognitive, affective, and action systems. Our focus is on understanding how these changes are adaptive, and how, under a number of circumstances, they can lead to disorder and disease.

Professor Emeritus Update: Michael Wertheimer

Professor Emeritus Michael Wertheimer's long career is ending with a bang, not a whimper. 2012 was his last year as a member of a board of the American Psychological Association; he has held some elective position in that organization every year since 1966. His latest three books were published in 2012: a fifth edition of his *A Brief History of Psychology*; a seventh volume in a series he co-edited since its inception, *Portraits of Pioneers in Psychology*; and a book published by MIT Press, *On Perceived Motion and Figural Organization*, in which he translated from German two long articles by his father, Gestalt psychologist Max Wertheimer, that form the core of the volume. Also in 2012, he presented two invited talks in September at a convention of the German Psychological Association in Bielefeld, Germany, one at a symposium honoring his father and another as a keynote address.

Officially retired in 1993 and having moved in 2011 to The Meridian, a retirement community in Boulder, Professor Wertheimer says he is “finally planning to retire de facto as well as de jure from a long and greatly enjoyed career as an academic psychologist.” About the department, he says, “My greatest pleasure was directing the departmental honors program, which produced more successful graduates than any other honors program in the College of Arts and Sciences.” He was also the director for several years of departmental doctoral programs in experimental psychology and sociocultural psychology.

Chair Lew Harvey speaks for all of us when he expresses his appreciation of Professor Wertheimer: “He has been a wonderful colleague whose breadth and depth of scholarship was always inspirational to me and irreplaceable for the department.”



Dr. Wertheimer and his wife, Marilyn, in their lovely apartment at The Meridian in Boulder.



Givers of the Gifts: The People Behind the Awards

Every year at spring graduation we hear the names of awards given to deserving members of the Department of Psychology & Neuroscience. Few attendees, however, are aware of the people behind those names. Here is some information about each of the awards:

Imogene Jacobs Award of \$3,000: Imogene Jacobs graduated from CU with a degree in psychology. During her time at CU, she developed an affection and respect for the department. She died in 1987. Her will contained an endowment for a scholarship to be awarded to a junior majoring in psychology to be used during the senior year.

Dosier Award of \$2,000: Charlotte Hayes Dosier received her Ph.D. from our department in 1952. The title of her dissertation is “The Bender-Gestalt test as an instrument for the differentiation of subcategories of schizophrenia.” The purpose of her scholarship is to benefit graduate students in the department.

Heyer Award of \$700: Dr. Heyer was a member of the faculty in the 1940's. His area of specialization was motivation, retention and psychophysiology. His award honors outstanding work by a graduate student in applied/organizational psychology.

Muenzinger Award of \$700: This award is in memory of Karl F. Muenzinger for whom the psychology building is named. Dr. Muenzinger joined the faculty in 1923. He helped construct the framework of our highly rated graduate program, and promoted empirical research as the focus of the department. From the beginning of his appointment as chair in 1947, he encouraged growth and pioneering in all areas of the field.

Fryberger/Heckendorn Award of \$100: Philip Fryberger and Carol Heckendorn were past Psi Chi officers who together revitalized Psi Chi, the international honor society in psychology, as an active and accomplished society on campus. This award is given to a student officer with dedicated service in promoting the activities and goals of Psi Chi.

These awards have been meaningful to recipients and much appreciated by the department. If you'd like to give a donation to the department for scholarships or other purposes, please see the donation information on the back cover of this newsletter. —Kate Bell

In Memoriam: Remembering David Chiszar (1944-2013)

I am sad to tell you that our retired colleague and former chair, David Chiszar, died on January 3, 2013, at his home in Louisville, Colorado. His passing was peaceful and not unexpected. Dave joined our faculty in 1970 after receiving his Ph.D. from Rutgers University. He enjoyed a widespread reputation as an expert in reptile behavior and focused his research on alarmingly dangerous snakes (rattlesnakes, spitting cobras, etc.). He was on the Board of Directors of the Denver Zoo. He served as chair of the department (1980-1983) before going to NSF as a program director (1983-1984). He then served as Associate Dean of Arts and Sciences upon his return to CU (1984-1985). Dave had a remarkable ability to put aside personality differences and make decisions that were for the best of the department. He gave me much good advice when I became chair. He was a good friend. I will miss him. Below are excerpts from reminiscences by two former students who have been deeply touched by Dave. —*Lew Harvey, Professor and Chair*

One of the first herpetology talks I heard ended with the general breeze-through of acknowledgments to everyone who had assisted with the project being presented. On the following slide the audience saw a large picture of David Chiszar, cautiously looking at a Brown Tree Snake in his lab, as the speaker said, “Dave has so generously helped me with my career, that I really just want to say thank you to him.” Working with Dave throughout my undergraduate career quickly progressed into learning the ropes of predatory behavior research with snakes, foundations of statistical analyses by completing stats by hand (the best way to learn, Dave always told me) and, importantly, how to avoid being bitten by a venomous snake!

Dave was diagnosed with cancer, with treatments leaving him to spend most of his time at home. “Don’t worry,” Dave would always tell me, “everything will work out just fine.” Monthly visits to Dave’s house to discuss research ideas, analyze data, work on statistics, and write manuscripts together, slowly progressed into weekly visits just to talk, to have lunch or dinner with him and his family, to discuss the struggles of graduate school, as well as my future goals and plans. Dave always listened, always helped, and always offered the most sincere advice. And even during the continuous chemotherapy treatments and visits to oncologists, never once did he hesitate to be there for me during a time of need, whether it was as my academic mentor or, more importantly, as my friend.

He was one of the most modest people I have ever met, and his research is respected throughout the



world. To date, some of the most amazing discoveries in snake biology and behavior have come from his laboratory in the basement of Muenzinger. As I continue with my Ph.D., I always think about how Dave provided the foundation for me to have the career I always dreamed of. He believed in me when so many would have just looked at my grades and GRE score and would have said no. He continuously helped me with my research, writing, and statistics when he was sick, but more importantly he helped me with the everyday struggles of being a grad student by being my friend. —*Anthony Saviola, graduate student at University of Northern Colorado*

Dave Chiszar changed me both as a scientist and as a man. He was an exacting scientist who demanded as much from his students as he expected from himself in his relentless pursuit of scientific truth. He also exuded unbridled enthusiasm, dogged determination and curiosity in his academic career that was truly infectious. It was obvious that he loved his work and he did not punch a time clock during his career as Professor of Psychology at CU; rather, he pursued his passion. I am currently Professor of Psychology at the University of New Hampshire: this is my job, but it is also my passion thanks to Dave Chiszar.

In my first year of graduate school at CU in 1979, I took the standard graduate statistics sequence taught by Dave Chiszar. This was the most challenging course I would ever take in graduate school. Dave’s philosophy was that if you knew something well enough, you could demonstrate that knowledge on command and with great expediency. I developed a severe case of test anxiety and was never one of his top students. In fact, were it not for the unwavering support of my graduate mentor, Steve Maier, I would have dropped out of the program and perhaps ended up in a different career. Nonetheless, I have taken away much more than statistical knowledge from Dave Chiszar. I learned a very

important lesson from this struggle with statistics: anything worth accomplishing is worth the fight. I developed a “can do” attitude, which Dave Chiszar instilled in me. Under his machismo veneer was a professor who cared deeply about training the next generation of scientists and the success of his students. He also left me with some cherished quotes that I use in my classes to this day. For example, “replication is the most powerful statistic.”

He opened my eyes to the nuances of animal behavior. He took our class to the Denver Zoo and walked us around and pointed out subtle things that we would never have noticed. It was this careful attention to detail that I developed that allowed me to come up with my dissertation idea. By carefully observing the difference in breathing cadence of escape and yoked rats, I hypothesized that they must be experiencing different

levels of fear/stress during the initial stress exposure. Although this work was conducted more than thirty years ago, I am still interested in the neural substrates responsible for resilience and vulnerability to stress.

Finally, Dave was a gifted orator. His use of facial expressions, gestures and changes in volume and cadence of his voice captivated me during every one of his lectures. He was such an effective lecturer that he could make the examination of sandpaper seem intriguing and worth careful scrutiny! For the past twenty-five years that I have been a professor, I try to emulate Dave when I lecture: giving the students more than their money’s worth and looking at each lecture as an opportunity to change someone’s life! –*Robert C. Druggan, Professor of Psychology, University of New Hampshire (1984 Ph.D. graduate of our department)*

Highlights from Alumni News on our Website

Alumni who sent us updates over the past year are listed below. You’ll find a full account of their news, as well as updates submitted by other alumni over the years, on our Alumni News website at <http://psych.colorado.edu/alumni/>. Click on the “Alumni News” link. You will initially see a “Permission Denied” message. Click on the “Login” button at the top right of the page. For login information, email psychology.news@colorado.edu

1940s

Norma Vavra Klein (BA '49)

1950s

David W. Nicholas, MBA (BA '56)

1960s

Rupert R. Brook (PhD '62)

David C. Parnes, MA, JD (BA '64)

Jacob (Jack) Hautaluoma (PhD '67)

Ron Hilliard, PhD (BA '69)

Fred Weber (BA '69)

1970s

Caroline Daniels (BA '71)

Andrea G. Sodano, PhD (BA '72)

Marjorie Whittaker Leidig (PhD '76)

J. Christopher Young, PhD (BA '76)

1980s

Stephanie Fox Harvey (BA '88)

Gary Shiffman, PhD (BA '88)

Will Morton, PhD (BA '89)

1990s

Mark Gehman, MBA (BA '90)

Beth Handelsman, MED (BA '90)

Linnea S. Hord, RN, MS, ANP-C (BA '90)

William Stinson, MA, MBA (BA '90)

Darrin Duber-Smith, MBA, MS (BA '92)

David McCain (BA '92)

Jennifer (Heggemeier) Grafton, M.Arch,
M.UD (BA '94)

Susan Walanski (BA '97)

Larry Beer, MBA, MPA (BA '98)

Catherine Tasche, PsyD (BA '99)

2000s

Wendy Linderholm, PsyD (BA '01, Psych &
Biology)

Leah Pressman (PhD '01)

Adrian Neibauer, MA (BA '03)

S. Joy Fox, PsyD (BA '04)

Laura Sejud, MS (BA '04)

Nick Browning, PsyD (BA '05)

Jenny (Morris) Morant (BA '05)

Chrissy Hubbell, MSW (BA '06, Psych & Art)

Steven P. James (BA '06)

Natalie Koncz, EdS, NCSP (BA '06)

Kristina Martin (BA '06, Psych & Philosophy)

Valerie (Rewinkel) Barton (BA '06)

Amanda (Celaya) Razo, MA (BA '07)

Kathleen (Deering) Meissner (BA '07)

Emilee Sandsmark (BA '08)

Frank Crane (BA '09, Psych & Theatre)

2010s

Jason Fedeli (BA '10)

Janette Fellows-Papak (BA '10)

Elizabeth Handing (BA '10)

Kelsey Page (BA '11, Psych & Spanish)

Devon Cozens (BA '12)

Jennine Paradise (BA '12)



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- The year that you graduated
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- Other activities of interest
- Insights into how your CU
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