

PsychologiCal

Dear Psychology Alumni,



Well, that was fun. In sending out the initial e-blast of our newsletter last fall, I asked that you return the favor, writing, "Our prospective students, both undergrad and grad, are always asking, 'Where does a Psychology degree lead?' We would like to provide an answer. So please take a few minutes and let us know about life beyond Tolman: Where are you and what are you up to?"

The response was phenomenal. Over 250 of you wrote back, some providing the basic essentials, others a recount of their life's travels and how, when looking back, they see the value of their Psych degree. We heard from graduates spanning eight decades, with the most senior of the respondents from the class of 1948. After raising six children, this graduate returned to Cal for a Ph.D. in Educational Psychology and then enjoyed a long, successful career doing school assessments.

I wish I had the space here to recount all of the stories. Psych degrees are clearly the springboard to a wide range of careers. To name just a few, we heard from therapists, professors, human resource managers, college presidents, kindergarten teachers, CEOs, program analysts, inventors, and homemakers.

In addition to the career updates, our respondents were also reflective, passing on words of advice for our current majors: some direct, and others, shall we say, a bit more tongue-in-cheek.

"The ultimate area of importance in any business is being able to communicate effectively and with conviction. Majoring in psychology gave me a basis of understanding the human mind and some of our idiosyncrasies as human beings."

"Go to business school and earn an MBA with an Accounting emphasis. Afterwards, go to Law School and earn a JD. Then work as a Full Service Corporate Real Estate Manager."

And best of all, "Remember, with a Cal degree, the world is your oyster!"

A number of our most recent graduates chimed in, telling of first impressions from graduate school, law school, a range of internships, Teach for America, world travels, and serving coffee at Starbucks. We can envision that these reports constitute the initial observations of what will surely become an intriguing, longitudinal data set.

Keep sending these our way by emailing calpsychnews@gmail.com. Regular mail is also fine (our address is printed on the last page of this newsletter). We would like to post these online, so please do let us know if you would prefer that we don't share this information publicly.

Best,
Rich Ivry
Chair, Department of Psychology

The Psychology Of Aesthetics

Art Shimamura and Stephen Palmer, members of the Cognition, Brain, and Behavior group, have connected their interests in psychology and art in their research on the psychological mechanisms of aesthetics. They and others discuss this emerging field in *Aesthetic Science: Connecting Minds, Brains, and Experience*, an edited volume published this year by Oxford University Press. Their public lecture at Cal can be seen at:



<http://www.youtube.com/watch?v=UwsEeQpxkFw>



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New Hornaday Chair Created

The Department of Psychology is thrilled to announce the establishment of the Thomas R. and Ruth Ann Hornaday Chair in Psychology, created with a gift from Tom and Ruth Ann Hornaday and matched by the Hewlett Foundation. A chair holder will be appointed in 2014.

Since 2007, the UC Berkeley campus has established 100 new endowed chairs, thanks to a generous partnership with the Hewlett Foundation. Gifts from donors like the Hornadays are matched with support from the Foundation to create \$2 million endowments. The Hornaday Chair will be the very first endowed chair for the Psychology Department, and will exist in perpetuity. The Hornaday Chair will provide research funds for the chair holder and departmental graduate student support.

Tom and Ruth Ann Hornaday are long-time champions of Cal. Tom graduated in 1963 with a degree in Business Administration and Ruth Ann in 1961 with a degree in Sociology. They now live in Arizona, where they operate a real estate development business. Tom and Ruth Ann have been steadfast contributors and active volunteer leaders at Berkeley, participating in the activities of the Greater Good Science Center, the UC Berkeley Foundation, and Intercollegiate Athletics, among other programs.

Psychology Chair Rich Ivry and his predecessor Steve Hinshaw sat down with Tom Hornaday. What follows are some excerpts from their conversation.

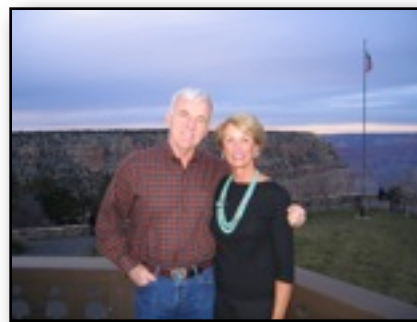
Ivry: As a Cal alum, you've been a stalwart supporter of Berkeley for many years. What motivates your philanthropy?

Hornaday: I love the place. Berkeley made me who I am. I worked hard to earn the privilege of being here and I always knew, even as a student, that I would contribute—intellectually, financially—in any way that I could. When I attended Berkeley, fees were \$66 per semester. I realized I was here thanks to the largesse of the people of California. I felt I should give back. Today, I believe we need to instill in our students, alumni, friends, and faculty an understanding that for Cal to maintain its preeminent position as a global leader in higher education and research, we must all contribute to the extent of our capacities. The state can no longer provide the resources for the University system to function at the necessary level.

Hinshaw: What has been the most rewarding aspect of your involvement with Berkeley as an alumnus?

Hornaday: Our work as founding donors of the Greater Good Science Center (GGSC) has been, far and away, the most rewarding. The GGSC is awesome. It started with a little idea—we had an idea for a chair to support research on well-being. George Breslauer, then-Dean of Social Sciences, suggested we begin by helping build a new interdisciplinary center. In 2001, we were pleased to see this result in the creation of the GGSC, a research center that promotes the science of inner peace and well-being. George Breslauer brought in Dacher Keltner, Steve Hinshaw and Phil and Carolyn Cowan, so our connection to, and engagement with, the Department of Psychology has always been strong.

Hinshaw: And that was perfect timing — scientific work on well-being was just getting off the ground. Interestingly, the National Institute of Health (NIH) also recognized the importance of this kind of work. A decade ago, the NIH all but ended its funding of research on behavioral change. Now the



Tom and Ruth Ann Hornaday at the Grand Canyon, November 2011

NIH is promoting new initiatives, with these directions being shaped by researchers involved with the GGSC.

Ivry: Together, you and Ruth Ann have created the first endowed chair in Psychology. What was most important to you as you considered the decision to endow a new chair?

Hornaday: Carla Hesse, Dean of Social Sciences, told me that the Psychology Department and Social Sciences needed to take advantage of the Hewlett Challenge. As I told Carla, we would love to work toward the goal of establishing a new chair—a gift that would benefit the campus in perpetuity—and continue to support the GGSC.

Hinshaw: What do you look back on with greatest fondness from your years as a student at Berkeley?

Hornaday: My experience playing football and rugby were formative. I wasn't a great athlete, but sports were an integral part of my experience as a student. I learned skills and values that contributed to my later successes.

Hinshaw: In looking back, how would you say your education at Berkeley most benefitted you?

Hornaday: I graduated in business, but took courses that extended far beyond that - physics, statistics, philosophy, Spanish, English. I think a liberal education is truly beneficial. I had to transfer to UCLA for two years to be nearer to our home in Chula Vista so that I could visit more frequently with my mother who had cancer. After my mother passed away, I returned to Cal. Berkeley offers a glimpse of the whole world, it is "the mini-Cosmos"—a student is totally immersed at Berkeley.

Ivry: As a committed donor, you've shown confidence in Berkeley's ability to thrive, even in challenging times. What do you think of as Berkeley's greatest assets?

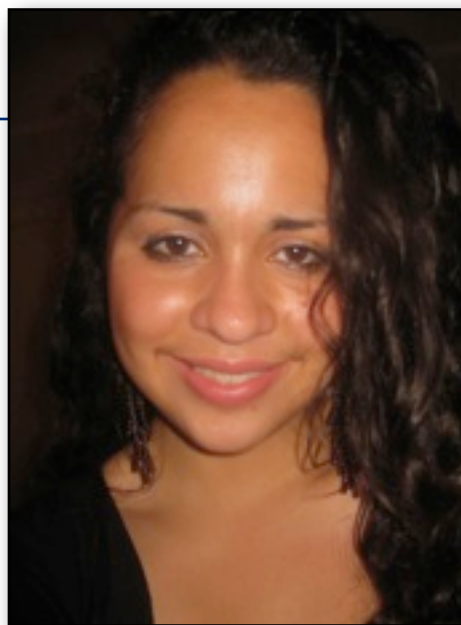
Hornaday: Berkeley energizes me because of how it influenced my own history. Its greatest assets? The faculty are always doing incredibly interesting things—challenging boundaries and exploring new ideas. Saul Perlmutter, the latest Cal Nobel Prize winner discovered the opposite of what he hypothesized: He discovered that the universe is expanding faster than we thought, rather than slowing down! That's exciting. At Berkeley I've met incredible students, amazing faculty and experienced a community like none other. We are honored to be contributing to Berkeley.

Cal Psychology Empowers Undergraduates

In the past two years, the Undergraduate Journal of Psychology at Berkeley (UJPB) has expanded its reach. Once a compilation of honors theses from Cal students, the journal now solicits empirical work and literature reviews from undergraduate authors from over 350 universities. Recent selections include work from undergraduates from the University of Kansas, Harvard University, and UCLA. It will also begin featuring shorter pieces, called “Stepping Stones,” targeted toward specific audiences (e.g., pre-teens, adults); the goal of these articles is to make scholarly research more accessible to the general public and to provide writing opportunities for undergraduates not currently completing research projects. Current editors-in-chief Chardee Galan, a senior psychology honors student, and Bella Rivaldi, a junior psychology major, lead the editorial staff through the selection and publication process. Each editor undergoes a three to four month training period, which includes workshops on APA style and formatting, statistics, and research ethics. Editors are joined on the publication team by a staff of web, graphic, and layout designers.

In a recent interview, Chardee and Bella discussed their involvement with the UJPB and what they hope students gain through their participation. In particular, they note, “our mission is to empower undergraduate researchers, as authors, and to empower editors to gain familiarity with reading and writing academic papers.”

Over the course of three months, the editorial staff reviews all submissions to the journal. The team receives as many as 80 submissions, which are then narrowed down to 8-10 accepted articles. As part of the selection process, the editors offer an opportunity for authors to receive feedback



Chardee Galan

on submissions, even those not chosen for publication, to generate ideas for improving the papers. Accepted papers are assigned to two editors who work with the author to strengthen the paper, based on what the editors have learned from training and from more seasoned undergraduate researchers on staff. Both editors-in-chief discussed the role of peer-to-peer mentoring in this collaborative venture. The editors explained, “Students from any class year or university may become members of the publication team by application; students bring with them diverse perspectives and skill sets, which can then be applied to tasks ranging from reading background materials on a topic to designing layouts, graphics, and website content.”

Chardee, the senior editor-in-chief, is in the process of training Bella, the junior editor-in-chief, so that the journal never has a lapse in its leadership. They mention that they are always learning and often have to “learn as they go.” These learning experiences seem to serve the editorial board well: many go on to do honors research of their own and with greater confidence. Both Chardee and Bella hope to pursue careers in clinical psychology. Their commitment to the publication and to helping students develop their academic writing skills is noteworthy.

The Undergraduate Journal of Psychology at Berkeley is available online (<http://ujpb.weebly.com/>) and in print form for \$3 at the Cal Student Store. The next edition will be available in late April or early May. Recent graduates are encouraged to submit papers based on undergraduate research. The publication team can be reached at berkpsychjournal@gmail.com.



Bella Rivaldi

Graduate Student Profile: Q&A with Kevin Uttich



Kevin is a PhD student in Tania Lombrozo's Concepts & Cognition lab here at UC Berkeley.

PsychologiCal: What are your broad research interests?

Kevin: I'm interested in moral psychology and social cognition, as well as the intersection of those two areas. More specifically, I'm interested in how people learn about and understand moral norms. I am also interested in understanding the ways in which moral norms are similar and different from the other types of norms, conventional and descriptive. As far as the intersection between the moral psychology and social cognition goes, I am interested in how people integrate normative information in social-cognitive judgments and reasoning. In particular, I'm interested in how norms – moral and otherwise – can influence mental state attributions, judgments of intention and causation, and the explanations people provide.

P: Who are your advisors/collaborators?

K: My advisor is Professor Tania Lombrozo, who typically works on topics in cognition, such as explanation, conceptual representation, and causal reasoning. She also has a separate line of research on moral reasoning. My research with Tania has straddled her lines of research by looking at the impact of norms on judgments of intentional action and the use of norms as explanations for the behavior of others. Tania and I have also collaborated with George Tsai, a recent Ph.D. in philosophy, on a project about people's moral beliefs and their use of moral norms as explanations for historical change.

P: What inspired your interest in these topics?

K: In high school, I became interested in both philosophy and cognitive science. As an undergraduate, it became clear that psychology was the best way to investigate the questions I had in both these domains. Two classes I took during my early graduate career – “Categories and Concepts” and “Theories of Explanation” – inspired the particular questions I have about moral psychology.

P: What kind of methods do you employ?

K: My research uses the empirical methods of psychology and the conceptual tools of philosophy to address questions in moral psychology and social cognition. Most projects involve presenting to participants vignettes that vary along an important conceptual dimension, and then examining the attribution judgments or explanations they provide. In some projects we've attempted to measure participants' beliefs about morality by adapting and creating scales.

P: Would you like to share information about a current project or project that is especially representative of your work? What was the manipulation/method, expected/actual results?

K: Recently, I collaborated with Tania Lombrozo and George Tsai on a project that investigated the use of moral norms as explanations for historical change, which we call ethical explanations. An example of an ethical explanation would be explaining the end of slavery by citing the fact that slavery is morally wrong. In one set of studies, we found that overall, participants rated ethical explanations on par with other non-ethical explanations for historical change, and that approximately one quarter of participants provided ethical explanations when asked to explain a historical change. Additionally, we found participants' beliefs about morality, specifically whether they endorse moral objectivity or moral progress, impacts their use of ethical explanations. In other words, participants who believe there are right or wrong claims about morality were more likely to endorse or provide ethical explanations when asked about a historical change. Another factor that predicted endorsing or providing ethical explanations is the belief that there is a general tendency for the moral features of the world to improve over time. These results suggest that people's conceptualization of moral norms influences their explanations for and understanding of historical changes.

P: What do you like about being in the Berkeley Psychology Department?

K: One thing I really like about the Berkeley Psychology Department is that in addition to the supportive and collaborative atmosphere within the department, there are also close ties to other departments on campus. My research has benefitted from Institute for Cognitive and Brain Science and Institute of Human Development talks, and classes in the Townsend Center. Also, the Moral Psychology Group at Berkeley has been incredibly important to me. It's given me an opportunity to discuss moral psychology with researchers interested in the topic from all areas of the psychology department, as well as from philosophy, education, sociology and the business and law schools.

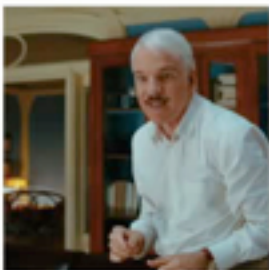
Professor Jack Gallant Makes Headlines

Mind-reading has long been the stuff of science fiction movies, but scientists at Berkeley are making progress towards making it a reality. In a study recently published in Current Biology, neuroscientist Jack Gallant and colleagues Shinji Nishimoto, An Vu, Thomas Naselaris, Yuval Benjamini, and Bin Yu were able to use brain activity measured while participants watched videos to reconstruct visual images. This work has made national news headlines, including features on NPR, BBC, and the News Hour.

Q: Could you give a simple outline of the experiment?

Gallant Lab: The goal of the experiment was to design a process for decoding dynamic natural visual experiences from human visual cortex. More specifically, we sought to use brain activity measurements to reconstruct natural movies seen by an observer. First, we used functional magnetic resonance imaging (fMRI) to measure brain activity in visual cortex as a person looked at several hours of movies. We then used these data to develop computational models that could predict the pattern of brain activity that would be elicited by any arbitrary movies (i.e., movies that were not in the initial set used to build the model). Next, we used fMRI to measure brain activity elicited by a second set of movies that were completely distinct from the first set. Finally, we used the computational models to process the elicited brain activity, in order to reconstruct the movies in the second set of movies. This is the first demonstration that dynamic natural visual experiences can be recovered from very slow brain activity recorded by fMRI.

Presented clip



Clip reconstructed from brain activity



Q: Can you give an intuitive explanation of movie reconstruction?

GL: As you move through the world or you watch a movie, a dynamic, ever-changing pattern of activity is evoked in the brain. The goal of movie reconstruction is to use the evoked activity to recreate the movie you observed. To do this, we create encoding models that describe how movies are transformed into brain activity, and then we use those



models to decode brain activity and reconstruct the stimulus.

Q: What are the future applications of this technology?

GL: This study was not motivated by a specific application, but was aimed at developing a computational model of brain activity evoked by dynamic natural movies. That said, there are many potential applications of devices that can decode brain activity. In addition to their value as a basic research tool, brain-reading devices could be used to aid in diagnosis of diseases (e.g., stroke, dementia); to assess the effects of therapeutic interventions (drug therapy, stem cell therapy); or as the computational heart of a neural prosthesis. They could also be used to build a brain-machine interface.

Q: At some later date when the technology is developed further, will it be possible to decode dreams, memory, and visual imagery?

GL: Neuroscientists generally assume that all mental processes have a concrete neurobiological basis. Under this assumption, as long as we have good measurements of brain activity and good computational models of the brain, it should be possible in principle to decode the visual content of mental processes like dreams, memory, and imagery. The computational encoding models in our study provide a functional account of brain activity evoked by natural movies. It is currently unknown whether processes like dreaming and imagination are realized in the brain in a way that is functionally similar to perception. If they are, then it should be possible to use the techniques developed in this paper to decode brain activity during dreaming or imagination.

This Q&A is an excerpt from the Gallant lab website's FAQ. Visit gallantlab.org for more information.

You can also watch a PBS news report on Jack Gallant's work at: http://www.pbs.org/newshour/bb/science/jan-june12/neuroscience_01-02.html

What Are Cal Alumni Up To?



John Montague

B.A. 1981

PsychologiCal: What is your current job?

Montague: Currently my primary employment is as a psychologist in private practice in the Carmel Valley area of San Diego. I am also on the clinical faculty of UCSD Medical School where I lecture and am part of a clinical research team at Scripps Clinic working with neurologists and neurosurgeons on an implantable device (Deep Brain Stimulation) to treat Parkinson's disease. I also provide expert witness testimony in court occasionally as a neuropsychologist and conduct competency evaluations for attorneys.

P: Do you feel your experiences studying psychology at Cal play a role in your current life? If so, how?

M: My education at Cal was amazing! I appreciate having had many brilliant professors and having the opportunity to participate in research as an undergraduate. The academic environment at Cal stimulated me tremendously and inspired me to go to graduate school because my eyes had been opened to how much more there was to learn. There was just too much more interesting material to learn to stop at the bachelor's level so I went on to get a Ph.D. in psychology.



Garrett Wong

B.A. 1976

P: What is your current job?

Wong: I am a Judge of the Superior Court of California in the county of San Francisco.

P: Do you feel your experiences studying psychology at Cal play a role in your current life? If so, how?

Wong: Yes. Although it has been more than thirty years, my degree in psychology from U.C. Berkeley provides me with a strong foundation to oversee criminal cases that involve mentally ill defendants who are designated not competent to stand trial, not guilty by reason of insanity, sexually violent predators or mentally disordered offenders.

Much has changed since I went to school, but a basic familiarity with treatment regimes, clinical language and other public/community mental health issues have enabled me to supervise a collaborative court that transitions individuals who have Axis I disorders from jail custody to outpatient treatment programs. Understanding the terminology is essential for a bench officer who must work with a team of experts that includes prosecutors, defense lawyers, psychologists and licensed clinical social workers from the county jail, UCSF's Outpatient "Citywide Program" and other community based non-profit organizations that serve the mentally ill.



Anna Lefler (née Cornett)

B.A. 1987

P: What is your current job?

Lefler: I'm an author, humorist and sometime standup comic. My first humor book, *The CHICKtionary: From A-Line to Z-Snap, the Words Every Woman Should Know*, just came out in November (published by Adams Media). Right now, I'm wrapping up my second novel, the first of which is being shopped for publication by my agent. I also have a humor blog called Life Just Keeps Getting Weirder (lifejustkeepsgettingweirder.blogspot.com).

P: Do you feel your experiences studying psychology at Cal play a role in your current life? If so, how?

L: Being a writer is all about being closely observant of - and humbly forming theories about - human behavior and tendencies. Comedy relies on these same practices, of course, at a fundamental level. I can't think of better preparation for these creative endeavors than Cal's Psych program. It's no exaggeration to say that I draw on those skills every day in my work. As a side bonus, whenever people find out that you have a psychology degree, it freaks them out because they think you can see right through their heads. I find this very handy, both as a humorist...and as a parent.

Cal Alumni



Ethan Newby
Ph.D. 1999

P: What is your current job?

Newby: I created my own company, which does independent research consulting on usability, statistics, and market research. I look at how people use technology – everything from websites to hardware (like cell phones or printers) to software – by running experiments and statistical analyses. This gives a users' perspective to the designers and engineers who build these products. I'm also an adjunct faculty member for the Green MBA program at Dominican University of California.

P: Do you feel your experiences studying psychology at Cal play a role in your current life? If so, how?

N: I definitely feel like I still use skills I learned at Cal. I still use the methodological skills I learned – for instance, understanding how to remove bias in studies, select subjects, and counterbalance procedures. My experience working with large data sets has also gave me an advantage over some of my peers.

Department News

Fei Xu was selected as a fellow for the Association for Psychological Science (APS).

Robert Knight is the recipient of a Distinguished Service Award from the Division of Social Sciences.

Tom Griffiths is the inaugural recipient of the Outstanding Young Investigator Award from the Psychonomic Society.

Tania Lombrozo is a recipient of the Association for Psychological Science's 2012 Janet Taylor Spence Award for Transformative Early Career Contributions.

Alison Gopnik discusses the work of Ron Dahl on the adolescent mind in *Edge* and *The Wall Street Journal*.

Developmental research from the labs of **Alison Gopnik** and **Tom Griffiths** was featured by science blog Gizmodo: <http://gizmodo.com/5892980/our-robot-overlords-will-have-baby-brains>

Charlan Nemeth's research is featured in an article about "Groupthink" in a recent issue of *The New Yorker*.

Carla Espana (S/P) was awarded a Diversity Travel Award from the Society for Personality and Social Psychology.

Bryan Alvarez has been working with a small interdisciplinary team of students and staff to create a web platform to facilitate and inspire large-scale interdisciplinary collaboration and advising for students and between departments on the UC Berkeley campus. If any other grad students are interested in getting involved, please contact him at bryanalvarez@berkeley.edu.

Wealth is correlated with unethical behaviors, according to a recent

study published in the *Proceedings of the National Academy of Sciences* (PNAS) by Berkeley's **Paul Piff**, **Daniel Stancato**, **Dacher Keltner**, **Rudy Mendoza-Denton**, and their colleague **Stéphane Côté**. This work has been discussed by NPR and *The Economist*, and Piff and Keltner contributed to a discussion in *The New York Times* about the role of greed on Wall Street.

Nine psychology students have been awarded the National Science Foundation Graduate Research Fellowship. Congratulations to **Lauren Asarnow**, **Alexandra Cartensen**, **Joseph Driscoll**, **Mikel Delgado**, **Jasmine Mote**, **Marcela Otero**, **Michael Pacer**, **Alice Verstaen**, and **Jia Wei Zhang**.

Two graduate students will move on to faculty positions next year. **Eric Walle** (CPD) accepted an assistant professor position in the department of psychology at University of California, Merced. **Stephanie Denison** (CPD) accepted an assistant professor position in the department of psychology at the University of Waterloo.

The Berkeley GSI Teaching and Resource Center has awarded **Stephanie Cardoos**, **Jim Casey**, **Josh Eng**, **Amie Gordon**, **Maya Kuehn**, **Erica Lee**, and **David Piekarski** with the Outstanding GSI Award for the 2011-12 school year.

Research on happiness by graduate student **Craig Anderson** and new faculty member **Iris Mauss** was discussed in the *Washington Post*, as well as on Rush Limbaugh's radio show. Limbaugh also discussed work from **June Gruber**, an alumna of the clinical area, who is now an assistant professor at Yale University.

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PSYCHOLOGICAL

SPRING 2012



Tim Sweeny, a postdoctoral student in David Whitney's lab, shows students at Rose Elementary in Milpitas a demonstration of a visual illusion. Depending on the lighting, this concave face mold can look either concave or convex. As part of the Whitney Lab Outreach Program, lab members volunteer their time visiting underprivileged middle and high schools in the Bay Area to give science demonstrations about face, color, motion, and depth perception. You can learn more about the outreach program here: <http://whitneylab.berkeley.edu/outreach/>

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