With this year marking the 50th anniversary of the Free Speech movement, a period of time that has come to define the beliefs and values of the UC Berkeley community, it is important to remember and reflect upon the significance of this event. In looking back on not only the movement itself, but also the historical and political contexts that set the stage for this protest, you might be surprised to see the name Edward Tolman featured so prominently. While most people recognize the name as a renowned psychologist whose work on animal behavior and cognition helped pave the way for the cognitive revolution of the 1960s and 70s, few are aware of Tolman’s legacy of political activism.

The year was 1949. The United States, still recovering and adjusting to life post-World War II, found itself mired in conflict with the increasingly powerful Soviet Union. Under the ever-present threat of another war, the country entered a period known as the Red Scare—a period of suspicion abounding with accusations of American citizens sympathizing or colluding with the Soviet Union. To assuage fears of subversive Communist activity in America, the McCarthyist government began requiring citizens to sign oaths of loyalty to the United States. In 1949, the UC Board of Regents similarly mandated that all employees sign oaths of loyalty to the country. Among these employees was Edward Tolman, a Professor of Psychology at UC Berkeley at the time.

In protest of this mandate, Tolman and several other faculty members presented UC President Robert Sproul with a formal petition of the loyalty oath requirement on July 18th of 1950. In a transcript of this petition, Tolman’s words ring as true today as they did in 1950: “In a democracy, neither a man nor his rights nor his reputation are condemned because of mere whisper or hate or prejudice or because he refuses to tip his hat or to bow or to scrape or to sign on the dotted line.” As a result of this bold stance on academic freedom, the University of California dismissed the non-signers of the loyalty oath, including Tolman, despite being a tenured professor. The ensuing legal battle between Tolman and the Regents of the University of California was finally resolved five years later in 1955, when the California Supreme Court ruled in favor of Tolman and the other non-signing faculty members, leading to their immediate reinstatement. In 1963, then-President of the University of California, Clark Kerr, named the newly constructed Education and Psychology Building in honor of Edward Tolman as a posthumous recognition of his pivotal role in protesting the oath and defending academic freedom.

Although the actual Free Speech Movement happened almost 10 years after the California Supreme Court Ruling was handed down, the efforts of Tolman and colleagues to defend what they perceived to be an infringement on academic freedom helped set the tone for the later student protests. As we celebrate the 50-year anniversary of an event that has come to define UC Berkeley, we should also remember Edward Tolman—a man whose actions and beliefs, above and beyond his academic prowess, remind us to appreciate the history of psychology at Berkeley.
Life After Berkeley:
Alumni Share Where a Cal Psychology Degree Has Taken Them
By Amanda Wang

By its very definition, the study of psychology applies to almost all spheres of life; after all, the Greek root psych refers to “mind” or “spirit”. As such, studying psychology at Berkeley paves a variety of paths for life after graduation, ranging from counseling and teaching to such diverse fields as firefighting and orthopedic surgery. Whether directly or tangentially related to psychology, all of these paths share a common root at Tolman Hall, where Berkeley students from over the decades have learned to think critically and scientifically about ourselves, other people, and our interactions with the world. Given the versatility of a psychology degree from Cal, alumni have left Tolman to pursue a variety of opportunities; to get a sense of where those paths have led, we caught up with a few alumni to ask them about their post-Berkeley experiences.

Adele Hanson, 1952

My Child Development Course with Dr. Catherine Landreth was the start of something I had never imagined. I discovered by participating in a co-operative nursery school that I really liked working with young children, so I obtained the necessary courses for teaching preschool and adult education through UC extension and eventually got a M.A. in Human Development from Pacific Oaks College. I became an Early Childhood Instructor at a community college and was supervisor of the Child Care Center, which also served as the instructional lab for the ECE program… I am extremely grateful for what UC did give me: a basic background and training in how to think.

Hannah Acevedo, 1998

After graduation, I participated in the District Intern Program in Los Angeles Unified School District for two years and earned my Bilingual Cross Cultural Language Development Teaching Credential. I taught in LAUSD for 5 years. During the last two years of teaching, I started a 3-year degree in School Counseling and Applied Behavior Analysis at Cal State University, Los Angeles, where I earned a Pupil Services Credential in both School Counseling and Child Welfare and Attendance, as well as the Board Certification in Behavior Analysis… For the past 9 years, I have worked as a bilingual school psychologist and behavior analyst for Berkeley Unified School District. Since having my two daughters, I now work only part-time and also consult for families and other school districts.

Nida Rehman, 2009

Upon graduation from Cal with a degree in Psychology, I found myself dreaming to pursue a career in social services. I credit this decision largely to the open-breadth setup of the Psychology program at Cal, which allowed me to experience and get a feel of a variety of specialized fields ranging from biological psychology to developmental psychology to social psychology. Within a few months after graduation, I began my profession at the California Victim Compensation Program, a state and federally funded program, established to help victims of crime. It is a highly stressful job that requires one-on-one interaction with victims and their families in the aftermath of a violent crime. I pride myself in being able to provide them with guidance and a helping hand in a time of high stress and tragedy. While the nature of the work itself is fulfilling and rewarding, it often brings with it vicarious traumatization or secondhand shock. My undergraduate academic knowledge has aided me a great deal in keeping me grounded and having the ability to efficiently practice self-coping and self-care skills, which is vital in this line of work. My formative years and experiences at Cal continue to play a role in my life by giving me the confidence and drive to excel further. GO BEARS!
Pam Swan, 1999

I went to paramedic school right after graduation, having been a part-time EMT during college. I then got a job with the Oakland Fire Department as a firefighter/paramedic. It paid the bills well and was a lot of fun for a while, but left me somewhat hungry for more. I then took pre-med courses as a post-baccalaureate [and] eventually enrolled in medical school. In the course of my residency, I had the pleasant opportunity to complete the circle, working on a project involving PsySTART, a method of triage for psychological trauma after a disaster. I’m now an emergency physician and recently joined the CA Urban Search & Rescue Task Force 5 as a medical team physician. I wouldn’t suggest my careening path as the easiest way to a career, but the take-home message is that there are options besides a graduate or doctorate in psychology that still make your undergrad education useful. And remember, with a Cal degree, the world is your oyster!

Undergraduate Spotlight: Karina Tachihara

By Malik Starx

As a senior psychology honors student with a minor in linguistics, Karina began working as a research assistant with Professor Rich Ivry’s Cognition and Action Lab (CognAc) in the fall of her junior year. In collaboration with CognAc post-doctoral student Matthew Crossley, Karina’s honors thesis work explores the flexibility of cognitive mechanisms involved in category learning. In Karina’s view, the study of behavior requires us to understand how people learn and modify categorization, as this process serves as the basis for decision-making. For example, when our cellular phones make a sound, we subsequently classify that sound into categories such as “alarm” or “incoming call” to take appropriate action.

How does this categorization process work on a cognitive level? When stimuli require similar responses into distinct classes, we learn how to categorize those stimuli with the help of two types of memory systems: declarative and procedural. As Karina explains, “the declarative system learns the categories through reasoning and can be flexible to manipulations. The procedural system, however, learns to map individual stimuli to individual responses through reinforcement learning, resulting in stimulus-response associations. This system is not flexible to manipulations.”

The malleability of those stimulus-response associations inspires Karina’s honors project, in which she examines which memory components are involved in breaking the associations. To study this experimentally, Karina first teaches participants to categorize certain stimuli through trial and error. Then, she explains, “we switch the response they should provide to break the stimulus-response associations. Counter-intuitively, switching only half of the correct responses is more detrimental than switching all of the responses.”

The results suggest that procedural memory plays a major role in recovering from broken stimulus-response associations. To further explore the recovery process, Karina, Matthew Crossley, and the CognAc Lab are currently planning follow-up experiments that also explore the neuroscience underlying the declarative and procedural systems.
Plans to construct a new home for the Psychology Department have gained momentum during 2014. Last spring, PsychologiCal reported that a replacement for Tolman Hall stands at the top of Berkeley’s list of infrastructural plans. The new building would be located on Berkeley Way, co-localizing Psychology, the School of Public Health, and the School of Education to foster interdisciplinary research.

Tolman’s poor seismic rating continues to provide the key impetus for moving to a new building. Since the early 1990s, the University has retrofitted or replaced about 75% of the campus buildings that were identified as seismically very poor or poor, and Tolman has now moved to the top of the list. Alas, this stigma will ultimately result in the demolition of the historic tribute to Edward Tolman after the new building is completed. Long-term plans include a replacement building on the current site with thoughts to bring Psychology “back home”, but that is well down the road. For now, the focus is on construction of a state-of-the-art facility for social science research.

Drawing on the University’s long-term borrowing capacity, the campus approved partial funding two years ago. At their March 2014 meeting, the UC Regents took a major step forward by endorsing a plan to use state funds for the remaining costs, subject to approval at the state level. This spring brought forth the first round of conceptual planning, with the project chaired by Cathy Koshland, Vice-Provost of Teaching Learning Academic Planning and Facilities. The planning committee includes the deans of Public Health, Education, Social Sciences, along with our department chair Rich Ivry, an architectural planning team, and representatives from UC Berkeley’s Real Estate office, the campus organization in charge of major capital projects. The key purpose of these meetings has focused on determining overall size needs, identifying program visions for shared and public space, thinking through classroom and lab uses, and evaluating options for integrating the building with the city neighborhood. The architectural firm has been generating 3D models to incorporate these ideas and motivate further conceptual development. Outside of the meetings, members of the committee have been touring Tolman Hall and other campus buildings to get a sense of how to optimize space design to promote innovation and creativity. If all goes as planned, we can anticipate packing our bags in 2017.

“One of the many conceptual sketches helping inspire early planning discussions for the Berkeley Way site, future new home of the Department.”

“...”
Beyond Academia Empowers Graduate Students

By Carla España

“So, what’s next?”

This is a question often asked of graduate students obtaining their PhDs after many years of hard work. While becoming a university professor is typically regarded as the standard path for recent PhDs and is a wonderful career trajectory for many, having a PhD also opens many doors and career options beyond the academy. With this knowledge, a team of UC Berkeley graduate students (who have since graduated) founded Beyond Academia, an organization that seeks to educate PhD and postdoctoral students about careers outside the traditional academic track. At the first conference held spring of 2013, attendees had the opportunity to network and listen to invited panelists who spoke about their careers and offered advice, encouragement, and wisdom. The response from both students and panelists was so positive and overwhelming that a second Beyond Academia Conference was held on February 20-21, 2014, this time increasing in size and scope. Highlighting the diversity and wealth of jobs available to scholars searching for non-academic careers, panelists ranged from consultants at McKinsey & Company, to data scientists in Silicon Valley, to entrepreneurs. Attendees also had the chance to participate in seminars and workshops, as well as to network with panelists of their choice over lunch.

Beyond Academia not only provides a much-needed resource for graduate and postdoctoral students aiming for a career outside the ivory tower, but also serves as a wonderful forum for those who are uncertain about leaving the academy and wish to educate themselves about the various opportunities available. This is especially beneficial for scholars who are contemplating options beyond academia but may not be comfortable discussing these issues in another context. For example, when asked about why he chose to attend the conference and what he found most useful, one attendee explained, “For me, the most helpful thing was talking to the panelists and making connections with people, because I already have a pretty good sense of what I am and am not interested in. It also gave me a chance to talk with other graduate students specifically about career stuff, which can be kind of awkward to discuss in lab.” He went on to address another important issue – namely, the lack of education in graduate school about non-academic positions. He states, “I think the Beyond Academia Conference is valuable because it fills a big gap in graduate education, which is preparing students to do anything other than being an R1 professor.” Another graduate student echoed this sentiment, saying, “I wanted to explore career options that are not often discussed within a graduate program. It is helpful to see what people with PhDs, especially those who graduated from Cal, are doing. Also, I want to know about life beyond graduate school.”

As an outstanding addition to the resources available to academics at UC Berkeley, this conference provides a wealth of information to those exploring alternative career paths. As the Beyond Academia team states, “We want conference-goers to leave empowered and aware of the potential of a PhD.” From the satisfied attendees’ positive feedback, it is safe to say that the team is well on its way to reaching that goal.

Els van der Helm graduated with her Psychology PhD in 2013 and went on to found Beyond Academia
Graduate Student Tchiki Davis Uses Scientific Research To Make a Global Impact
By Megan Norr

One of the key goals of science is to eventually bridge the gap between research and real-life application. This goal may take many forms—for example, developing new drug treatments, implementing public health policies, or even creating online tools that optimize happiness and mental well-being. For Tchiki Davis, a 4th year doctoral candidate who studies emotion regulation in Dr. Iris Mauss’s Emotion and Emotion Regulation Lab (EERLAB), applying research to the real world takes the latter form. Throughout her graduate school career, Tchiki has not only devoted herself to the typical pursuits of teaching, research, and publication, but also to the broader aim of helping people increase their daily experiences of positive emotion.

To this end, Tchiki joined forces with tech expert and longtime web designer Michael Davis (who is also her dad!) to create LifeNik, an online tool that can be used on a day-to-day basis to promote mental health and well-being. Rather than taking a top-down, eat-your-vegetables approach that relies on people's inherent motivation to do something purely because it's good for them, Tchiki designed LifeNik with a bottom-up approach that incorporates brain training and positive psychology into the activities people already engage in online. Drawing upon research from Berkeley's EERLAB and capitalizing on the increasing popularity of brain training websites like Lumosity.com, Tchiki’s vision is to redesign online resources that people already use to create a virtual environment in which social networking and gaming activities translate to real-life gains in well-being. “Imagine games that are not only fun to play, but also train you to focus on positive (versus negative) information in your environment,” she explains. “Or imagine a social network where the purpose is not just to share information, but to improve your mental health.”

The idea for LifeNik began sprouting when Tchiki scoured the empirical literature on attention, emotion regulation, and positive psychology interventions for her research in the EERLAB. These studies show that positive emotion processes—such as positive reappraisal, kindness, attending to positive material, participating in positive activities, and building relationships—all increase positive emotion, and the more of these skills people use, the better off they are. By basing LifeNik on current research in psychology, Tchiki hopes to create a tool that helps people improve their emotional, social, and mental well-being. The project is scheduled to go live this summer; for more information, visit www.lifenik.com or contact tchiki@lifenik.com.

Department’s Tech Expert Retires
By Carla España

Ted Crum, a longtime and valued employee of the Berkeley Psychology Department, has recently retired. We took a moment to catch up with Ted to ask about his time at Berkeley, his memories of working in the department, and life post-retirement.

Ted started working for the Psychology Department in 1976 as a part-time Senior Electronic Technician in Professor Russ De Valois’s lab. Later, Ted restarted his engineering program and transferred to UC Berkeley, receiving a BSEE in 1985 and a promotion to Associate Development Engineer. In fact, much of the research that has emerged from Berkeley’s Psychology Department would not have been possible without Ted and his technological innovations. Drawing from his studies in digital filtering and psycho-acoustics at UC Berkeley, Ted developed many of his most satisfying projects in his anechoic chamber. For example, he built a large experimental-control system for Professor Al Riley’s lab, which he believes was the largest single machine he designed. He also designed many devices for Professor Irv Zucker to monitor the activity of lab animals, and is especially proud of the large environmental chambers that have been in constant use for 20 years.

Ted remembers his time in the department fondly, stating, “My greatest satisfaction over the years has come from helping people, and from knowing that I contributed to our researchers’ success. It has been a luxury to work with the smart and gracious people of our faculty, staff, and student body.” Ted spends his time post-retirement traveling, sailing, and riding motorcycles with his wife. We thank Ted for his priceless contributions to the Cal Psychology Department.
**Department News**

**Scientists in the Media**
- A recent article by Alan Cowen (CBB), published in *NeuralImage*, has received media attention in sources such as *The Huffington Post* and *The Wall Street Journal*. Cowen’s research showed that pictures of faces can be faithfully reconstructed from patterns of brain activity.

- Caren Walker (CPD) and Dr. Alison Gopnik recently published a *Psychological Science* article showing that toddlers quickly learn higher-order relational causes. Their research has been featured on NPR, *The Wall Street Journal*, and *The Washington Post*, among other news forums.

- Jason Fischer and Dr. David Whitney recently published a *Nature Neuroscience* article that has received news coverage in sources such as *The Washington Post*, *The Daily Mail*, *The Guardian*, and *Psychology Today*.

- For the past twenty years, Dr. Bob Levenson has been leading a longitudinal study of Bay Area marriages. Recent publications from this study have garnered much attention, including a front-page piece in *The Chronicle* and a call-in on KQED’s *Forum* program.

- Dr. Alison Gopnik co-authored a paper showing that, in some cases, children are better learners than adults. The research has been covered in a number of places, including *Time Magazine*. Dr. Gopnik has also been traveling the globe giving plenary lectures at the Japanese Society of Developmental Psychology in Kyoto, the Northeast Society for Science and Skepticism in New York City, and the Tucson Conference on Consciousness.

- **New Scientist** named Dr. Art Shimamura’s latest book, *Experiencing Art: In the Brain of the Beholder*, as one of the best science books of 2013.

- Dr. Stephen Hinshaw examines the causes behind the increasing rates of ADHD in his book *The ADHD Explosion*, published in January 2014.

**Awards & Recognition**
- Professor Emeritus Dan Slobin received the 2014 Roger Brown Award for his contributions to the field of language acquisition. The award will be presented at the 13th International Congress for the Study of Child Language in Amsterdam this July.

- In recognition of Dr. Tania Lombrozo’s research, The Psychonomic Society awarded her with their 2014 Outstanding Early Career Award.

- Caren Walker (CPD) won the Elizabeth Munsterberg Koppitz Child Psychology Graduate Student Fellowship, which provides $25,000 in support of her dissertation research.

- Ryan Morehead (CBB) received a competitive travel scholarship to attend the 24th annual meeting for the Society for the Neural Control of Movement in Amsterdam.

- Jane Hu (CPD) won the 2014 American Association for the Advancement of Science Mass Media Fellowship. This summer, she will spend ten weeks in Washington, D.C. writing for *Slate Magazine’s* science and health section.

- Congratulations to Audun Dahl (CPD), Carla España (S/P), Jennifer Kanady (Clinical), Jason Lee (Clinical), Samuel Sakhai (BN), Jared Saletin (CBB), and Benjamin Griggs (School of Education) for receiving the Psychology Department’s Outstanding GSI Awards this year.

- The National Science Foundation’s Graduate Research Fellowship supports outstanding science and engineering graduate students. For the 2013-2014 application cycle, the Psychology Department is proud to add three winners to the list of NSF fellows: Judy Jinn (BN), Justin Riddle (CBB), and Daniel Stancato (S/P). Fausto Gonzalez (S/P) received honorable mention.
Postbaccalaureate Program

Department of Psychology, UC Berkeley

The UC Berkeley Department of Psychology’s Postbaccalaureate Certificate Program is a comprehensive retraining and immersion program for students interested in applying to graduate school in psychology. The program features:

• Fast-track preparation for students seeking admission to top graduate programs in psychology and neuroscience.
• Tailored coursework to provide specialized training in
  - Cognitive and Systems Neuroscience
  - Clinical Sciences
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• In-depth research internship, with final capstone project.

Postbaccalaureate students will be enrolled in regular UC Berkeley classes and conduct research under the supervision of our world-class faculty.

For more information:
http://psychology.berkeley.edu/content/post-baccalaureate-overview

Questions? Email psychpostbac@berkeley.edu