# Berkeley Psychology INSIGHT



### Letter from the chair

#### Dear Alumni and Friends!

It is an honor to write my first "Letter from the Chair" for our Berkeley Psychology newsletter. I transitioned into the Chair role in July, aiming to do my best to carry on the supremely capable and compassionate leadership of my predecessor, Ann Kring.

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Life during COVID-19: To be sure, these past several months have been marked by significant challenges, among them the pandemic, the longstanding systemic racism we must confront, and the historic 2020 presidential election. More locally, the pandemic has required us faculty and students to adapt our teaching and research endeavors to fit remote circumstances, while our undergraduates have had to learn a new way of learning. Our staff have had to deal with a moving landscape of Covid-19-related changes to policies and rules. Meanwhile, the financial fallout of

the pandemic hangs over all of us. There is no denying that these challenges have been trying at times, and acutely so for those in our community whose loved ones have been directly affected by Covid-19.

**Resilience and Community:** But we have also seen resilience and a strong sense of community. In October, we came together in a lovely Zoom celebration to thank Ann Kring for her five years of service as our Chair. There was great delight in seeing the faces of several of our Emeriti faculty, intermixed with our newer faculty. There was camaraderie, laughter, and even song (we have some talented musicians/singers amongst our faculty!). And there were heartfelt expressions of gratitude and admiration for all that Ann accomplished as Chair, including the gargantuan task of moving us to Berkeley Way West a few years ago. Our Community Building and Cohesion committee, headed by Professor Sheri Johnson and tasked with fostering an inclusive departmental climate, has been busy, organizing bi-weekly virtual coffee hours for our community to share stories, commiserate, and celebrate big and little triumphs. Our Graduate Assembly of Students in Psychology (GASP) has provided similar opportunities for our graduate students to stay connected, even while miles apart across the country and world. This fall we launched a Diversity, Equity, & Inclusion committee, co-chaired by Professors Mahesh Srinivasan and Arianne Eason, who are actively working with their fellow committee members on an agenda for ensuring equity and broadening representation in our department. All the while, our faculty and students continue to be recognized for their groundbreaking work (Honors and Awards; Publications) and to push their research forward, identifying potential solutions for some of the most pressing problems we face today—racial inequities, deficient sleep, mental health problems, economic inequality, stigma and prejudice, and so on.

So, even as we brace for another (one more?) semester of remote instruction and limited campus access this spring, we have much to be grateful for and hopeful about in our community. The future remains very bright!

#### Give to Psychology, here

Also please send us your stories and life updates — we feature alumni stories on our website and would love to hear from you!

And keep in touch with us via <u>Facebook</u>, <u>Twitter</u>, and our <u>Department website</u>.

Best wishes for a wonderful holiday season,

Serena Chen Professor and Chair



#### BERKELEY PSYCHOLOGY INSIGHT

### **Honors and Awards**

**Robert Knight**, professor of Psychology and Neuroscience, was the **2020 recipient of the Howard Crosby Warren Medal** from the Society of Experimental Psychologists for his pioneering methodological and empirical contributions to our understanding of the neural mechanisms of human cognition.

Alison Gopnik, professor of Psychology, has been awarded the James Mckeen Cattel Fellow Award, a lifetime achievement award from the Association for Psychological Science, for her outstanding research in development, cognitive science and philosophical psychology.

Joseph Campos, emeritus professor of Psychology has been awarded the 2020 Distinguished Scientific Contribution Award from the International Congress of Infant Studies.

**Dacher Keltner,** professor of Psychology, has been inducted into the **American Academy of the Arts and Sciences** in 2020, which honors exceptionally accomplished individuals. Kevin Weiner, assistant professor of Psychology and Neuroscience, was awarded an Early-Career Investigator Award from the American Association for Anatomy this past semester for his work establishing the importance of formerly overlooked tertiary sulci in the human cortex.

**Stephen Hinshaw**, professor of Psychology and Psychiatry and Behavioral Sciences, is among four 2020 recipients of the **American Psychological Association's Award** for Distinguished Scientific Contributions. He also is the recipient of the 2020 Rhoda and Bernard Sarnat International Prize in Mental Health.

**Iris Mauss,** professor of Psychology, is the recipient of the **Carol and Ed Diener Award** in Social Psychology, which recognizes mid-career scholars whose work has added substantially to the body of knowledge in the field of personality psychology.

**Richard Ivry,** professor of Psychology and Neuroscience received a **Research Program Award** (**R35**), an award designed to provide long-term support to allow investigators, who have made major contributions to neuroscience, the freedom to embark on ambitious, creative, long-term research projects.

### **Charter Hill Society for Psychology**

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The Charter Hill Society is a community of alumni dedicated to supporting UC Berkeley Psychology, its students and faculty, and each other. Members will be invited to special programming for Psychology, as well as to events with Charter Hill members from around the College. Recent lectures and events have featured Nobel laureates and leading figures in Psychology and Neuroscience.

Charter Hill members make a three-year pledge to the Psychology Department of \$1,000 or more per year. Gifts directly support the students and faculty of Berkeley Psychology.

To become a member of the Charter Hill Society, feel free to make a three-year recurring commitment on our website <u>here</u> (One-time gifts can also be made).

For more information or questions, contact Anya Essiounina: <u>anya.essi@berkeley.edu</u> | (510) 642-9722

#### BERKELEY PSYCHOLOGY

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## **Publications**



The study was published in *Proceedings of the Royal* Society for Biological Sciences

## How our master clock influences female reproduction

The master circadian clock in the human brain, the suprachiasmatic nucleus, influences everything from sleepiness to mood. A recently published chapter by **Neta Gotleib** in Lance Kreigsfeld's lab (in collaboration with Jacob Moeller) describes how the master clock is involved in the precise timing of neural signals and hormone release required for successful female reproduction. Circadian disruption has vast consequences on female reproductive health including irregular ovulatory cycles, reduced fertility, increased miscarriage rates, and abnormal fetal development. As modern humans are exposed to limited sunlight during the day and artificial light at night, we suffer from chronic circadian disruption, leading to a great interest in further implications for our daily lives.



### **RESEARCH DISCOVERIES**

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#### Do you see what I see?

It's usually assumed that observers see essentially the same thing. **Zixuan Wang** with **David Whitney** challenged this assumption in a recent publication, showing that individual observers see the same objects as being very different. Measuring the ability to resolve fine details, localize objects, and to perceive object size, they found dramatic individual differences in each measure -- revealing observer-specific distortions of perception, or a fingerprint of misperception. These idiosyncratic fingerprints underlie human spatial vision, and might originate from early visual processes that propagate through later stages to change the appearance of the world uniquely for each person.



The study was published in *Masterclass in Neuroendocrinology* 

## Understanding political motivations of Indigenous Peoples

A current report by **Emma Ward-Griffin** in collaboration with **Arianne Eason** and other international colleagues focused on the motivations underlying Indigenous Peoples voting and political engagement patterns. Through a summary of data, it was found that Indigenous People prioritize improving mental health, caring for tribal elders, and addressing violence against women, children, girls, and LGBTQ2S+ individuals. The researchers highlighted several steps that individuals can take to empower and honor Indigenous Peoples, including advocating for their needs, listening, and gaining an understanding of the contemporary issues that Indigenous communities face.

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## Publications

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## Broken sleep predicts hardened blood vessels

In a diverse sample of over 1,600 individuals, **Vyoma Shah** from **Matt Walker**'s lab, described a novel pathway displaying sleep's role in the body. In a recent publication in *PLOS Biology*, Shah and colleagues found that sleep fragmentation raises inflammatory-related white blood cell counts (neutrophils and monocytes), increasing atherosclerosis severity despite other common risk factors. Thus, enhancing sleep quality may represent one preventive strategy for lowering inflammatory status and atherosclerosis risk, which also further reinforces public health policies focused on improving sleep.



The study was published in Self and Identity

#### Impulsivity in girls with ADHD

In recent work by **Ashley Halkett** in **Stephen Hinshaw**'s lab, girls with childhood attention-deficit/hyperactivity disorder (ADHD) were found to engage in oral sex at a significantly younger age than their typically-developing peers, reporting nearly twice as many oral sex partners. Group differences were driven largely by girls with the combined presentation of both inattention and hyperactivity/impulsivity. As no differences emerged with respect to age of initial sexual intercourse or number of male intercourse partners, there remains a need to determine the relationship between varying forms of sexual behavior especially in these populations.

### RESEARCH DISCOVERS



The study was published in **PLOS Biology** 

#### Imagining our future self

People generally care about their future. However, in a recent publication in *Self and Identity* by **Stephen Antonoplis** from **Serena Chen**'s lab, an individual's capacity to vividly imagine, like, and value their future may vary across socioeconomic status (SES), holding possible consequences for health gradients across SES. Using correlational and experimental studies, it was determined that occupying a lower-SES environment (particularly, a lower income) was a disadvantage when compared to individuals in a higher-SES environment. These individuals tended to not view their futures vividly, which connected them less to their present self. They also held lower esteem for their futures, choosing to allocate less money to their future selves.



The study was published in Archives of Sexual Behavior

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## **Publications**

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The review was published in *Nature Reviews Neuroscience* 

## Preschoolers learn in a naturalistic overhearing context

Have you ever wondered how children can learn words so quickly? **Ruthe Foushee** working with **Mahesh Srinivasan** and **Fei Xu**, performed a clever experiment published in *Cognition*, in which 3 to 6 year-olds were taught names and facts corresponding to novel objects. Critically, children were either taught explicitly by an experimenter or through a short overheard conversation. Children in the overhearing condition displayed robust learning, with older children (4.5 to 6 years) learning equally well in both conditions. These results suggest a distinct change in attentional control and capacity occurring across this age group.

### **RESEARCH DISCOVERIES**

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### Beyond dichotomies in reinforcement learning

Reinforcement learning (RL) has become an important framework for psychology, neuroscience, and machine learning. Yet, a recent publication from Assistant Professor **Dr. Anne Collins** and a colleague, suggests that the common portrayal of two separable RL systems, model-free and model-based learning, may be overly simplistic. Although a dual-system theory allows different components of learning and decision-making to be extracted, key aspects could be misattributed to unrelated computations. By choosing precise language and carefully describing the building blocks of learning and decision-making, RL researchers can move past the restrictions of a dichotomy.



The study was published in Cognition



### 150 Years of Women in Psychology

The Psychology department proudly joins the rest of campus to celebrate <u>150 Years of Women</u> at UC Berkeley. To celebrate all the women who have made this department strong, we are releasing three articles regarding our history (found <u>here</u>). Please read further about how our first 3 PhD graduates were all women and where some of our female graduates can be found today.

### **Incoming PhD Students 2020**

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Breanna Bullard Clinical Science



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Megan Chan Clinical Science



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Christopher Crawford Social Personality



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**Regina N Ebo** Social Personality



Victoria Keating Developmental



**Evan Orticio** Developmental



Alexis Pracar Cognitive Neuroscience



Sierra Semko Social Personality



Emma Ward-Griffin Social Personality



Albert Jiaxu Qu Behavioral Neuroscience



Nirupika Sharma Social Personality



**Eunice Yiu** Developmental



Erika Roach Clinical Science



**Jiyoung Song** Clinical Science



Natalie Samuels Clinical Science



**Tianhe Wang** Cognitive Neuroscience



## Remembering Art Shimamura

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With sadness, we share the news of the passing of Art Shimamura at his home in Kailua, Hawaii, on October 6, 2020. Art was part of the first wave of cognitive neuroscientists, co-authoring some of the most influential studies of memory disorders during his postdoc with Larry Squire at UC San Diego. He continued with this line of work after joining the faculty at UC Berkeley in 1989, where his intellectual curiosity led to

seminal research on the way in which attentional processes influence memory encoding and memory retrieval, work that stood out for its elegant manner of combining neuropsychological and neuroimaging methods.

Art was a wonderful teacher, mentor, and citizen of the University. His Psych 1 class was a campus favorite, replete with his booger and donut jokes (and a university award for distinguished teaching). He was a founding member of the Cognitive Neuroscience Society and the Memory Disorders Research Society, and a mentor to many of the current leaders in these two organizations. With his clarity of thought and calm but enthusiastic demeanor, Art generously provided advice and guidance to many young scientists as well as a broad range of scientists around the world. In addition to his wife Helen, Art leaves his two sons, Tommy and Gregory, along with his ex-wife Joan Winters. The family asks that donations in Art's memory be made to the UC Berkeley Department of Psychology. Funds donated in his name will be designated for graduate support.

Donations can be made <u>here</u>—please be sure to indicate that the gift is in honor of Art's memory.

Editor-In-Chief, Director of Design: Christina Merrick Managing Editor: Juliana Chase Faculty Editor: Kevin Weiner Contributors: Maedbh King, Juliana Chase

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