

Psychology Department Lab Preview  
September 5, 2018  
5:00pm - 7:00pm  
Schermerhorn 200B

Welcome to the Lab Preview. We believe that the chance to participate in research is one of the best opportunities that our department has to offer. By joining a lab, you will see how research projects are conducted. Depending on the lab, you may also see how projects are developed, how data is analyzed, and how presentations are put together for conferences and publication. If you are involved in a lab for the long term, you may even contribute to a project that enables you to be a published researcher yourself. After today's presentations, you may want to learn more about particular labs. You can do so at <http://www.columbia.edu/cu/psychology/research/facultyresearch/researchlabs.html>

### **Ways to be involved**

There are three ways to get involved in a research lab:

**1) Volunteer** – Many students volunteer in research labs. Some labs require that students volunteer for a period of time before becoming more “official” members of the lab.

**2) Register for Supervised Individual Research (PSYC 3950)** – Many students register for supervised research. You may register for up to 4 points of supervised research per term. In general, you should figure that you will be working in a lab for approximately 3 hours per week per credit. This is not set in stone and must be negotiated with the specific lab that you will be working in. Different labs have slightly different requirements. As part of your supervised research, you will be expected to do some independent academic work related to the lab work you are doing. This may be a paper or an oral presentation, depending on the lab.

**3) Work-study/Paid work** – Sometimes labs will hire undergraduates as work-study students to work in their labs. Occasionally non-work study positions are available for students with very special skills that are needed (e.g., programming). This must be arranged with a particular lab on an individual basis.

### **What we are doing today**

Today representatives from the psychology department research labs will talk with you about their labs and the role that you might play. Our presenters include faculty members, postdoctoral fellows, graduate students and lab managers. Contact information for these individuals is included below. As you hear about projects that interest you, be sure to make a note by the name of the person who you would like to speak to about the project. Towards the end of the session, you will have an opportunity to talk with our presenters about getting involved in their research projects. If you are unable to speak with someone today, use the contact information that we have provided to get in touch with them later. In general, the best

person to contact is the person who presented the project or the lab manager. If a graduate student presented the project, he or she is probably a better contact person than the faculty member who oversees the lab.

Some of our presenters will tell you about their labs even though they do not currently need any research assistants. If you are interested in the research in these labs, you may want to contact them before the spring semester to see if they are looking for research assistants at that time.

### Contact Information for Labs

In many cases, the best contact person for the lab is the lab manager or one of the graduate students listed below. Many of the graduate students and other contact people listed are presenting today. In most cases, labs that are not represented today are not currently looking for research assistants, though this may not be true in all cases.

Faculty	Research Lab	Lab Contact	Lab phone and faculty e-mail
Mariam Aly	Attention, Perception, and Memory	Nicholas Ruiz nar2160@columbia.edu	212-854-1569 ma3631@columbia.edu
Balsam, Peter	Adaptive Behavior Lab	Kimberly Bowman kb2887@cumc.columbia.edu	646-774-5219 balsam@columbia.edu
Baldassano, Chris	Dynamic Perception and Memory Lab	Hannah Tarder-Stoll hrt2116@columbia.edu Matt Siegelman mes2338@columbia.edu	cab2304@columbia.edu
Bolger, Niall	The Couples Lab	Katherine Zee kzee@psych.columbia.edu	212 854-0127 coupleslab@psych.columbia.edu
Downey, Geraldine	Social Relations Lab	Mike Naft mjn2138@columbia.edu	212-854-6923 srlmgr1@gmail.com
Graham, Norma	Mathematical Models of Visual Processes	Norma Graham nvg1@columbia.edu	nvg1@columbia.edu
Hart, Carl	Human Behavioral Pharmacology	Chris Medina-Kirschner cm3536@columbia.edu	212-854-5313 clh42@columbia.edu

<b>Faculty</b>	<b>Research Lab</b>	<b>Lab Contact</b>	<b>Lab phone and faculty e-mail</b>
Heiphetz, Larisa	Social and Moral Cognition	Red Wolle rgw2121@columbia.edu columbiasamclab@gmail.com	212-853-1407 lah2201@columbia.edu
Higgins, E. Tory	Motivation and Social Cognition	Isaac Jean-François cuhigginslab@gmail.com	212- 854-8464 tory@psych.columbia.edu
Hood, Donald	Physiological Bases of Visual Processes	Seung Lee shl2147@columbia.edu	212-854-4234 dch3@columbia.edu
Metcalfe, Janet	Metacognition and Memory	Zach Bucknoff metalab@psych.columbia.edu	212-854-4726 jmetcalfe@psych.columbia.edu
Morris, Michael (Columbia Business School)	Cultural Psychology Lab	Zachary Brown zbrown20@gsb.columbia.edu	212-854-2296 mwm82@columbia.edu
Ochsner, Kevin	SCAN Lab	Sky Zhang tz2401@columbia.edu Yi Zhang yz3549@columbia.edu	212-854-1860 ochsner@psych.columbia.edu
Oishi, Shigehiro	The Culture, Social Ecology, and Well-Being Lab	Shigehiro Oshi so2238@columbia.edu	so2238@columbia.edu
Purdie- Greenway, Valerie	Intergroup Relations and Diversity Lab (LIRSM)	Mamfatou Baldeh mb3926@columbia.edu	212-851-5964 vpvaughns@psych.columbia.edu
Shohamy, Daphna	The Learning Lab	Eileen Hartnett eah2134@columbia.edu	212-851-2795 shohamy@psych.columbia.edu
Silver, Rae	Neurobiology of Behavior	Joseph LeSauter jlesaute@barnard.edu Rachel Kennedy-Smith rhk2117@columbia.edu	212-854-3909 qr@columbia.edu
Stern, Yaakov	Taub Institute Cognitive Neuroscience Division	Dan Barulli djb2168@columbia.edu	212-305-9712 ys11@columbia.edu

<b>Faculty</b>	<b>Research Lab</b>	<b>Lab Contact</b>	<b>Lab phone and faculty e-mail</b>
Tottenham, Nim	Developmental Affective Neuroscience Lab	Tricia Choy tcc2132@columbia.edu	212-854-3608 nlt7@columbia.edu
Woolley, Sarah	Neural Basis and Behavior of Social Communication	Sarah Woolley sw2277@columbia.edu	212-851-0184 or -0185 sw2277@columbia.edu

## **Current Lab Advertisements**

The following list includes further descriptions of ongoing research in just some of the labs above, as well as listings for specific research positions. Not all positions have a listing. If a lab does not have a listing here, there may still be positions available.

### **Adaptive Behavior Lab Prof. Peter Balsam**

The Adaptive Behavioral Laboratory, under the direction of Peter Balsam, studies how animals learn the relationships between important events. Using classical and operant conditioning procedures in rodents, we are interested in the behavioral and neural mechanisms of learning and motivation. You can learn more about what we do on our lab website:

<http://www.columbia.edu/cu/psychology/balsam/index.html> We may be looking for additional research assistants. We require a commitment of 10-12 hours a week (minimum) and need people who are available for at least 3-4 hour blocks of time on 2 days other than Friday or weekends, and some availability for lab meetings on Fridays. Please contact Peter Balsam ([balsam@columbia.edu](mailto:balsam@columbia.edu)) and tell us why you're interested in our work, when you are available, and your background in psychology.

### **The Couples Lab Prof. Niall Bolger**

In the Columbia Couples Lab we study dyadic processes (i.e., interactions between two individuals), particularly during times of stress. Our primary line of research looks at how people support each other, both effectively and ineffectively. Support can have costly effects for both the giver and the receiver. We want to know how to maximize the effectiveness of a partner's supportive behaviors in a given scenario. We also have additional lines of work that focus not only on romantic couples, but also on friend pairs and unacquainted pairs of individuals; for example, some current directions examine social interactions occurring between individuals from different backgrounds who have never met before. We use intensive repeated-measures designs to study dyad members and their interactions and to explore how daily transactions of social support and stress affect processes such as satisfaction, self-regulation, self-efficacy, and overall psychological and physiological functioning. We use both lab-based experimental

studies and naturalistic, longitudinal studies of daily experiences. Finally, we work with multilevel models, structural equation models, and dynamical systems models that are suitable for the study of change processes in individuals and dyads, both between and within persons.

**Requirements:** RAs will be expected to work on multiple studies/projects. Applicants should be responsible, reliable, self-directed, work well in teams, and able to commit a minimum of 10 hours per week. Applicants who are able to commit to 15 hours per week for both fall and spring semesters and/or who have some availability to work in the lab evenings and weekends will typically receive priority.

**Available Positions for Fall 2018:** Though we cannot guarantee openings, we expect that there will be positions available this semester. Please note that we do not offer RAs the opportunity to complete research for credit (Supervised Individual Research) during their first semester in our lab.

If you would like to be considered for a potential opening, please email us on/after Friday, September 7, 2018. In this email, please send **your CV, your ability to address the requirements outlined above, your work study eligibility, and a brief message describing your interest in the lab to Katherine Zee ([kzee@psych.columbia.edu](mailto:kzee@psych.columbia.edu))**. Once you have sent in your materials via email, please also fill out this brief survey: <https://goo.gl/forms/5QoAyAG7ryMBOux23>

### **The Higgins Lab Prof. Tory Higgins**

What makes strangers 'click'? What does it mean to have 'merged minds' with a close relationship partner?

What makes us likely to succeed at our goals? How do our motivational orientations influence how we perceive the world around us?

Ongoing projects in our lab explore a range of questions about how our basic motivations influence how people relate to each other and go about navigating their social worlds. We study the motivational underpinnings of social perceptions, judgments, decisions, and behaviors, in a wide range of contexts, such as:

**Interpersonal Processes:** What are the motivational processes underlying the development and maintenance of romantic relationships? Can a 'shared reality' with a close partner change our physical perceptions of the world around us? How do we effectively provide and receive social support?

**Motivational Effectiveness & Performance:** What makes us likely to succeed, or likely to fail? What are the motivational underpinnings of performance in different contexts?

Higgins Lab Research Assistants will be given the chance to work closely with graduate students and help out with different stages of projects, including background literature searches, research design, data collection, analysis and interpretation, thereby acquiring a variety of methodological skills.

We have *volunteer and for-credit (SIR) positions open, each for a 10-hour/week commitment or more, at least 2 semesters.*

Any interested students should **contact Isaac Jean-François** at [cuhigginslab@gmail.com](mailto:cuhigginslab@gmail.com) and attach *your resume, unofficial transcript, and a brief (~250-word) statement of interest.*

Alternatively, read through the 'people' section of our lab website and directly **email the graduate student whose work interests you most, with the same application materials:** <http://higginsweb.psych.columbia.edu/people/>

Applicants are evaluated on a rolling basis.

### **The Learning Lab Prof. Daphna Shohamy**

Our research is focused on the intersection between learning, memory and decision making. We are interested in characterizing when and how different brain systems for learning interact and whether this interaction is competitive or cooperative. We focus on two main brain systems for learning - one in the striatum and the other in the hippocampus. Traditionally, the striatum and hippocampus were thought to support independent and distinct learning systems. We have demonstrated that there is cross-talk between these systems during learning, raising questions about the nature of this interaction and its significance for learning and decision making. We are now investigating how this cross-talk is impacted by several key factors, including: motivation and feedback, social context of learning, aging, and genetic differences between learners. We study several populations, including: undergrads, Parkinson's Disease patients, older adults (50 - 85 years old), children, and adolescents. For more information, please see our lab website: <http://shohamylab.psych.columbia.edu/>

The current position will be responsible for a wide-range of tasks, including: recruitment, running subjects, and data entry. RA's would also be invited to attend lab meetings. With experience, qualified RAs may be eligible to take on projects with greater responsibility and autonomy. Ideally, RAs will commit to working 8 - 10 hours/week for a minimum of two semesters. Interested candidates are encouraged to email Lucy Owen ([lucywowen@gmail.com](mailto:lucywowen@gmail.com)), attaching their resume.

### **Mathematical Models of Visual Processes Dr. Norma Graham**

Flexible position involving tasks in research on visual perception. Depending on a person's interests and skills, these tasks might include data analysis and running mathematical models. (Familiarity with excel and Matlab as well an interest in research on visual processing would be useful for these tasks, but previous knowledge is not required.) These tasks generally also include miscellaneous administrative and clerical tasks (e.g., scanning, proofreading, running errands). 5-15 hours per week, flexible hours. (Can be done through work-study or otherwise.) Contact: Prof. Norma Graham [[nvg1@columbia.edu](mailto:nvg1@columbia.edu)]

## **Metacognition and Memory Lab**

**Dr. Janet Metcalfe**

Metacognition refers to (a) our ability to monitor our own cognitive states (e.g., assessing how well we understand a text or how likely we are to remember a set of facts) and (b) the ways in which we use the output of this monitoring to make strategic decisions about how to study or what to study next.

We have two main lines of research in the lab:

1. Studying the metacognitive processes that contribute to effective self-guided learning in young adults, with emphasis on mind wandering and examining how/when one mind wanders.
2. Investigating the causes and consequences of the feeling of being in control of one's behavior and through it, effects in the environment.

RAs tasks include, but are not restricted to: recruitment, running subjects, attending lab meetings, and literature searches. More experienced RAs (typically those who have spent more than a year with us) may sometimes take on their own research project. Ideally, we hope that RAs can commit to working 5-10h weekly for two semesters.

If interested, please email us at [metalab@psych.columbia.edu](mailto:metalab@psych.columbia.edu).

## **Cultural Psychology Lab**

**Prof. Michael Morris**

What situations trigger cultural conformity?

How do people internalize and manage social scripts from multiple cultures?

What are the different kinds of multiculturalism and how do these ideologies/policies guide choices and social perceptions?

If you like to think about and study questions at the intersection of culture, gender, acculturation, and cognition, join the Morris Lab!

Morris Lab is open for RA application all year around. RAs will be working closely with other members of the laboratory (including other RAs, graduate students, and postdoctoral fellows) on one or more of our ongoing research projects. You may be involved in different stages of research projects, including literature review, study design, preparing stimuli and materials, scheduling and running studies, entering or coding data, and data analysis.

To apply for a research assistant position, please email Zachary Brown ([zbrown20@gsb.columbia.edu](mailto:zbrown20@gsb.columbia.edu)) with a brief CV and your availability (e.g., Mon, Wed: 8am – 3pm, Tue: after 4pm, Fri, whole day, etc.).

For more information about our lab's recent and ongoing research, please visit:

<http://www.michaelwmorris.com/lab>

<http://www.michaelwmorris.com/http://www.michaelwmorris.com/scientificpublications>

or look up "morris mw" on google scholar

### **SCAN Lab**

#### **Prof. Kevin Ochsner**

Research in the Social, Cognitive and Affective Neuroscience lab examines the psychological and neural processes involved in extracting social, emotional, and cognitive meaning from the world. As a research assistant, your involvement may include gathering relevant articles, recruiting participants, running studies, and assisting in data analysis. The requested time commitment is about 10-15 hours per week.

Some current projects in our lab investigate: emotion experience and regulation in young versus elderly participants, emotion and self-regulation in individuals suffering from depression and suicidal tendencies, self-regulation of alcohol cravings in problem drinkers, the long-term effects of emotion regulation training, internalized stigma of those who are at clinical high-risk for developing psychosis, and more! We collect behavioral, psychophysiological and neural (fMRI) measures.

To apply for a research assistant position, e-mail Sky Zhang (tz2401@columbia.edu) or Yi Zhang (yz3549@columbia.edu). Please include a little bit about yourself and attach a CV.

### **Social Relations Lab**

#### **Prof. Geraldine Downey**

Led by Geraldine Downey, the Social Relations Lab studies several topics that allow us to discern the effects of situational factors on the individual, and the effects of individuals on their environment and their immediate situation. One of the lab's principal focuses has been rejection sensitivity, which is the disposition to anxiously expect, readily perceive, and intensely react to rejection. Current research studies cognitive, affective, and behavioral outcomes associated with disclosure of one's criminal record. We are also interested in development, behavior, and punishment with respect to both youth and aging populations. Finally, we are interested in drugs and behavior — studying, most recently, cognitive functioning of people who use cocaine. Our research teams reflect populations that are affected by our work — something we value highly. We collaborate with the Center for Justice at Columbia, of which Geraldine is the Director — which is committed to reducing the nation's reliance on incarceration and advancing alternative approaches to safety and justice through education, interdisciplinary research, and policy.

### **Cognitive Neuroscience Division, Dept of Neurology**

#### **Prof. Yaakov Stern**

Research at the Cognitive Neuroscience Division in the Department of Neurology spans the gamut from investigating changes in the brain as the result of healthy aging using fMRI to exploring subtle neuropsychological deficits that result from pathologies like Alzheimer's disease. Volunteers in our lab are expected to make a substantial commitment to working with us, though we are flexible in schedules. Student volunteers are highly encouraged to pursue independent projects in addition to other lab duties, which often can include administering

cognitive tasks to study participants. If you are interested in getting involved, please send an email to Daniel Barulli ([djb2168@columbia.edu](mailto:djb2168@columbia.edu)).

### **The Aly Lab** **Prof. Mariam Aly**

At the Aly Lab, we are trying to unravel the behavioral and neural relationships between memory, attention, and perception. Memory and attention are intricately related, such that what we attend to largely determines what is remembered later on. Memory and perception are also closely linked, insofar as what we remember is based on what we perceive (and attend). Yet, these aspects of cognition are often studied in isolation. Moreover, it is unknown to what extent “memory systems” of the brain can also be involved in attention and perception. Based on prior work in our lab, we now know that attention, perception, and memory can depend on similar computations performed in individual brain regions: the same systems involved in memory are also involved in attention and perception. Ongoing work in the lab elucidates the interplay between these aspects of cognition, and additionally how motivational factors can influence the relationship between attention, perception, and memory.

The central question in the lab is how different forms of goal-directed behavior can affect how information is remembered, perceived, and attended. To answer this question, we employ behavioral methods on a variety of populations, from Parkinson’s patients and amnesic patients to healthy adults. We also explore how the brain regions associated with memory, attention, and perception interact with each other by use of functional neuroimaging (fMRI).

We are currently looking for volunteer research assistants to help with data collection, data entry, and other administrative work. We ask that RAs commit 5-10 hours a week for at least two semesters. If you are interested, please email Nicholas Ruiz ([nar2160@columbia.edu](mailto:nar2160@columbia.edu)) with your CV, a short statement indicating why you are interested in our lab, and your semester availability.

### **Social and Moral Cognition (SAMC) Lab** **Prof. Larissa Heiphetz**

In the Social and Moral Cognition (SAMC) Lab, we are interested in how children and adults understand their social world. This is a big question, and many topics fit under this broad umbrella! Below are some topics we are currently investigating, and some of the questions we are most fascinated by:

**The development of social preferences.** How do children and adults reason about and interact with people who are different from them? Many psychologists have investigated this question in the domains of race and gender. In contrast, most of the work in our lab focuses on social preferences based on beliefs such as religion and morality, which may function differently from other domains for several reasons. Because beliefs are not perceptually salient (it’s not always possible to tell what someone thinks just by looking at them), it may be difficult for children to determine who is like them.

**Religious cognition.** Religious beliefs and practices are an important aspect of many people's lives, yet the ways in which individuals understand religious ideas remains understudied in psychology. Our work shows that children and adults distinguish religious beliefs from other mental states, such as factual beliefs and opinions.

**Moral cognition.** People's moral viewpoints influence many aspects of their lives, including whom they choose to befriend, avoid, reward, and punish. Our work in this area investigates several interrelated topics, including children's understanding of morality and the relationship between moral beliefs and other types of beliefs (e.g., religious, factual, political). Another line of our work investigates how people judge moral beliefs to be a central aspect of their own (and others') identity.

**Judgments of the criminal justice system.** Currently, over 2.3 million American adults are behind bars. The vast majority of these individuals will return to the world outside the prison walls. What do these individuals experience before, during, and after their incarceration? Answering this question sheds light on many of the topics studied in our lab. For example, incarceration disproportionately affects African American communities, and currently and formerly incarcerated individuals face stigma in domains such as employment and housing. Therefore, work on intergroup attitudes can provide a helpful lens through which to understand some aspects of incarceration, and studying incarceration can move the study of intergroup attitudes into a domain that is relatively new for psychologists.

Interested in our work? If so, please contact Redeate Wolle at [columbiasamclab@gmail.com](mailto:columbiasamclab@gmail.com) for an application. **Note: all research assistant (RA) positions for the Fall 2017 semester have been filled. However, we are accepting applications on a rolling basis for new RAs interested in joining our lab in the Spring 2018 semester.**

### **Laboratory of Intergroup Relations and the Social Mind (LIRSM)**

**Dr. Valerie Purdie-Greenway**

Work on research exploring identity, diversity, and intergroup cooperation and how these processes affect individual performance and health. Gain valuable research skills using a variety of methods, from field studies to psychophysiological measures. Prepare yourself for graduate school with mentoring and journal discussions.

**Identity Threat, Health, and Intervention:** What is the effect of contending with negative stereotypes or other threats to identity on subjective stress, physiological stress, health outcomes, and intellectual performance? How can we intervene to mitigate these harmful effects?

**Structure of equality:** What structural factors influence racial and gender diversity, or lack thereof, in hiring? How do institutions influence the public's understanding of race-related events and perpetuate inequality?

**Intersectionality:** Do people ignore or pay closer attention to people with multiple stigmatized identities?

**Computational Social Science:** How can we best use computational methods to study questions about the social environment?

**The Hart Lab  
Dr. Carl Hart**

**General Area of Research:** Behavioral and neuropharmacological effects of psychoactive drugs in humans.

**Current Research:** We investigate the behavioral and neuropharmacological effects of psychoactive drugs in human research participants. We carry out this research to provide a more accurate view of what drugs do and don't. It is our hope that this information will be used to provide more effective substance abuse treatment strategies and more appropriate drug policies.

**Current Projects:** Assessing the impact of drug combinations on human performance.

We are not currently looking for research assistants.

**Dr. Sheena Iyengar**

Sheena Iyengar is looking for Research Assistants (for credit or unpaid) to work out of the Business School. Sheena works in social psychology and specializes in subjects like the power of choice, authenticity, culture, and perceptions artificial intelligence. Potential assistants should be prepared to help with research projects, expect to learn the ins and outs of study design/methodology, and learn to contribute to theoretical development.

Please submit a resume or CV and 1 paragraph personal statement of why you are interested in this position to: [sheenaiyengaroffice@gsb.columbia.edu](mailto:sheenaiyengaroffice@gsb.columbia.edu)