

***Listing of Psychological Research Opportunities
for undergraduates interested in research assistantships***

There are numerous and varied opportunities for students to become involved in ongoing psychological research conducted within the Department of Psychology and affiliated programs. This booklet lists most of those opportunities, including information on the research itself as well as duties of a research assistant in each lab.

Students should speak with the individual identified on the listing with whom s/he would like to work. The student may receive academic credit by enrolling in Psych 500, Independent Study, after receiving approval from that person and completing the *Petition for Supervision of Independent Study* form (available outside rooms 221 and 207B). The student must have the form signed and completed by the sponsoring faculty and returned to Sharon Corcoran, Psychology Building room 207B. Ms. Corcoran will then register you for the appropriate section. The petition form must be completed and brought to Ms. Corcoran before the add/drop deadlines. It is required that 3-4 hours per week for 15 weeks be devoted to aspects of the research for each unit of credit to be earned.

The following are some of the goals we hope are accomplished by engaging in Independent Study:

Engaging in the undergraduate research experience through Independent Study should

- (1) expose the student to various aspects of empirical research and the functions of a psychology laboratory;
- (2) provide the student with the opportunity to practice and refine research skills;
- (3) give the student a deeper and fuller understanding of a particular topic or field of psychological inquiry;
- (4) promote and support research in the department and the discipline by providing researchers with interested, qualified assistants;
- (5) train students interested in continuing in psychology to be prepared and effective in pursuing these goals and contributing to the scientific world.

To accomplish these goals, the following guidelines are suggested:

- (1) Students are expected to devote 3-4 hours per week for 15 weeks to aspects of the research for *each* unit of credit to be earned. This includes working in the laboratory, attending laboratory meetings, meeting with supervisors, and reading material related to the project.
- (2) The student should meet with the supervisor in charge at the beginning of the semester and establish what is expected from each side. The student should be informed as to which project(s) s/he will be involved, and in what capacities s/he is expected to assist.
- (3) It is recommended that there be at least one assessment/feedback session during the course of the semester between the professor and student.

Assessment of the student's work and effort for the Independent Study and any additional requirements are the responsibility of the student's research mentor. Papers, presentations, and/or discussions of material are all possibilities that the mentor may require of the student. These expectations should be outlined at the beginning of the semester.

In addition to research opportunities, the Department also offers *Internship in Psychology* (Psych 225) and *Practicum in Applied Behavior Analysis: Autism/PDD* (Psych 235). The *Internship* provides students with the opportunity to apply psychological principles to applied settings, such as social service agencies, medical settings, and business and industry. For further details, and a listing of approved Internship placements, see the *Guide to Internships in Psychology*. The *Practicum* offers an opportunity to be trained in applied behavior analytic techniques and work with a child with autism/pervasive developmental disorder. For additional details, see the brochure, *Practicum in Applied Behavior Analysis: Autism/PDD*.

Name: Richard A. Abrams, Ph.D.

Office: Psychology, 323B

Phone: 935-6538

E-mail address: rabrams@wustl.edu

General Area of Research:

Eye movements, visual attention, movement control, visual perception.

Prerequisites/Special Skills Required of Undergraduate Research Assistants:

Assistants:

It is helpful if students have taken a course taught by Professor Abrams, and it is useful to have had some prior coursework in Experimental Psychology or Sensation & Perception, but these are not essential.

Description of Research:

My research examines questions about the mental mechanisms that underlie overt movements of the eyes and limbs, and covert movements of visual attention. I seek answers to fundamental questions about such behaviors including: To what extent do eye, limb, and attention movement systems obey similar operating principles or perhaps employ shared mental mechanisms? To what extent do these systems share spatial information? In what coordinate systems and reference frames are the various movements planned and implemented?

In recent work we have studied an interesting interaction between vision and movement systems: There are systematic differences in the visual perception of objects near our hands compared to objects that are far from our hands. Experiments that have revealed these differences have simply had subjects respond to visual stimuli while their hands were either on the table in front of them, or placed on the sides of the video monitor. Several aspects of performance differed depending on the location of the hands. The results reveal brain mechanisms that are specifically devoted to evaluating objects near our hands—perhaps because we may need to plan how to reach for and grasp such objects.

For more information about my research and laboratory see: <http://rabrams.net>

Duties of Research Assistant:

Students would usually participate in all of the activities of the laboratory including: literature search, reading and discussing research articles, planning new experiments, computer programming (if desired), scheduling and running subjects in experiments, analyzing data.

Name: Dave Balota, Ph.D.

Office: Psychology, 325B

Phone: 935-6549

E-mail address: dbalota@artsci.wustl.edu

General Area of Research:

The interplay amongst Language, Memory and Attention and the changes that occur in these systems in both healthy older adults and in individuals with early stage Alzheimer's Disease.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

None

Description of Research:

- 1) Retrieval of information from long-term memory. In these experiments, the major interest is in the structure of long-term memory and the processes that are used during the retrieval of information from that structure. We are also interested in how retrieval processes from semantic memory are involved in visual word recognition and in reading.
- 2) Age-related and disease-related changes in executive control mechanisms. This work is directed at developing better understanding of the cognitive markers that discriminate healthy aging from early stage Alzheimer's Disease. These studies involve attention selection tasks, and more subtle measures such as reaction time variability and measures of personality.
- 3) Mental Chronometry. This work involves better understanding the moment by moment changes in cognitive processes that are reflected via reaction time distributional analyses across a variety of tasks. The goal here is to best understand how to isolate separate processes.

Duties of Research Assistant:

Research assistants will be involved in all aspects of a given research project; from collecting the data, to data analyses and interpretation. Also, assistants will have the opportunity to develop future research topics in regularly scheduled meetings.

Name: Deanna Barch, Ph.D.

Office: Psychology, 345B

Phone: 935-8729

E-mail: dbarch@artsci.wustl.edu

General Area of Research:

Studies of cognitive and emotional deficits in disorders such as schizophrenia, and the neurobiological mechanisms that contribute to such deficits. My research includes behavioral pharmacological, and neuroimaging studies with healthy and clinical populations. One line of research examines the cognitive and neural mechanisms that contribute to difficulties regulating thoughts, memories and emotional responses in schizophrenia.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

Some basic computer skills would be preferred, particularly basic knowledge of how to use an Apple computer.

Description of Research:

The cognitive and neurobiological mechanisms contributing to cognitive, language, and emotional regulation deficits in individuals with schizophrenia and those at risk for schizophrenia. In these studies, we have several goals. One of our goals is to determine exactly which cognitive and emotional processes are disturbed in schizophrenia. Another one of our goals is to determine what neurobiological mechanisms contribute to such cognitive and emotional deficits, with a particular focus on dorsolateral prefrontal cortex, the anterior cingulate, and their interactions with the dopamine systems. These studies involve conducting behavioral experiments and functional magnetic resonance imaging experiments with both healthy and clinical populations.

Duties of Research Assistant:

Duties would include experiment preparation (i.e., designing stimuli and experimental paradigms), collecting data (i.e., scheduling and testing participants), data analysis (i.e., data entry and statistical analysis), and participation in lab meetings. Interested and motivated students may also become involved with conducting and analyzing functional magnetic resonance imaging studies.

Name: Todd Braver, Ph.D.
Office: Psychology, 341B
Phone: 935-5143
E-mail address: tbraver@artsci.wustl.edu

General Area of Research:

Cognitive neuroscience: Studies of attention, working memory and executive control using a variety of methods including behavioral analysis, functional neuroimaging, individual differences, special populations and computational modeling.

In particular, my research examines the psychological and neural mechanisms by which people actively maintain information such as goals, instructions, plans, or specific prior events for short-periods of time, and use this information to appropriately guide and control their behavior.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

Responsible, reliable, and highly motivated. Basic computer skills are very much preferred, as most of the research involves computer work. Knowledge of statistics, statistical software, and computer programming is also a plus. However, any student with a willingness to learn and work hard should feel free to contact Dr. Braver.

Description of Research:

Ongoing projects examine working memory, attention, inhibition, multi-tasking and decision-making. We also focus on how cognitive processing in these domains interact with emotion, motivation and personality.

Duties of Research Assistant:

Students will conduct literature searches, read/discuss relevant journal articles, and participate in lab meetings where ongoing research is presented and discussed. They will also gain experience with data collection and analysis of behavioral and psychophysiological (e.g., pupil dilation, EMG) experiments with young adults

Particularly motivated, able and committed students may also have the opportunity to assist with:

- 1) Collection and analysis of functional neuroimaging data (fMRI)
- 2) Studies in different populations (e.g., older adults)
- 3) Simulations with connectionist (neural network) models of behavioral and physiological phenomena.

Name: Pascal Boyer, Ph.D.
Office: Memory and Development Laboratory, Academy Building
Phone: 935-4739
E-mail address: pboyer@artsci.wustl.edu

General Area of Research:

Developmental Psychology, Children's concepts of animacy and number
Adult perception of animacy and number
Memory and concept acquisition in children

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

Minimal computer literacy (creating text and image files) Interest in dealing with children. Much patience when dealing with very young subjects.

Description of Research:

Studies on incidental counting (how children and adults represent numbers without necessarily being conscious of it). Studies of animacy: what sort of stimuli are quickly perceived as 'live' as opposed to inert things. Studies of memory for stories that include novel concepts, counter-intuitive ones and standard associations: effects on long-term retention of new concepts.

Duties of Research Assistant:

Checking experimental designs, preparing stimuli for experiments (images, toys for children), running experiments with subjects (adults in lab, young children in schools), scoring and encoding data. Helping with statistics and data summaries.

Name: Robert M.Carney, Ph.D.
Office: 4320 Forest Park Ave., Suite 301
Phone: 286-1300
E-mail address: carneyr@BMC.wustl.edu

General Area of Research:

Behavioral medicine, clinical health psychology

Prerequisites/Special Skills Required of Undergraduate Research Assistants:

Description of Research:

Our studies focus on the effects of depression on the etiology, course, and outcome of coronary heart disease. In addition, we are testing new treatments for depression in patients with heart disease, and attempting to understand how depression increases the risk for dying in these patients.

Name: Brian Carpenter, Ph.D.

Office: Psychology, 235G

Phone: 935-8212

E-mail address: bcarpenter@wustl.edu

General Area of Research:

Mental health in older adults, family relationships in late life, Alzheimer's disease, interactions between patients and physicians, end-of-life issues.

Prerequisites/Special Skills Required of Undergraduate Research Assistants:

Varies with each project.

Description of Research:

1. Creativity later in life.

In this project conduct interviews and surveys with artists to explore how aging has influenced their creativity and how staying creative has influenced their aging. Work on this project involves interviews with artists, survey preparation, creativity testing, coding art works for creativity, coding videotaped interviews with artists, and data analysis.

2. Reactions to an Alzheimer's disease diagnosis.

In this project we study how people react when a patient receives a diagnosis of Alzheimer's disease. We are conducting this project at the Alzheimer's Disease Research Center at the Medical School. Work on this project will involve reviewing videotapes and other data.

3. Illness representation in Alzheimer's disease.

In this study we will be conducting interviews and distributing surveys to assess people's understanding of what Alzheimer's disease is and what it does to a person. Work on this project will involve recruiting participants, conducting interviews, coordinating survey distribution, and data management.

4. Enhancing family communication skills.

In this project we are developing a web-based education tool to help older parents and their middle-aged children be better prepared for aging. Work on this project would involve helping to design and implement the website, helping to construct a survey protocol to assess the effectiveness of the website, participant recruitment, and data management and analysis.

Duties of Research Assistant:

Depending on the project, students will collect research data, manage, watch and code videotape interactions, perform basic statistical analyses, review results with the project team, and participate in weekly lab meetings. We are the process of developing several new research projects, and students can contribute to their evolution.

Name: Cynthia Cryder

Office: Simon Hall 273

Phone: 314.935.8114

E-mail address: cryder@wustl.edu

General Area of Research: The psychology of consumer decision making.

Prerequisites/Special Skills Required of Undergraduate Research Assistants: An introductory psychology or marketing course is a sufficient start. More exposure to research-based courses and methods is even better.

Description of Research:

Topics studied in the Consumer Behavior Lab in the Olin Business School include:

- Intertemporal preferences
- Happiness and well-being
- Consumer spending and debt decisions
- Prosocial behavior

For more information, visit the webpages of Cynthia Cryder, Joe Goodman, Selin Malkoc, and Steve Nowlis (Consumer Behavior Lab Faculty)

Duties of Research Assistant:

- Attend and participate in lab meetings
- Collect data in the lab
- Collect data in the field
- Data entry
- Literature Reviews

Name: Ian Dobbins, Ph.D.

Office: Psychology, 315A

Phone: 935-7345

E-mail address: idobbins@wustl.edu

General Area of Research:

Cognitive psychology, human memory, brain imaging

Prerequisites/Special Skills Required of Undergraduate Research Assistants:

Experience with spreadsheets and computers preferred, but not required.

Description of Research:

Our research primarily examines the purposeful and incidental recovery of memories. In the lab we use behavioral studies along with brain imaging methods to examine how people search for, and render judgments about, their memories. This is an excellent opportunity to learn how to program experiments and get initial exposure to functional magnetic resonance imaging of memory retrieval. Initial research duties will be geared around behavioral studies that examine how various manipulations affect subjects' confidence in their memory reports. For example, will subjects often spontaneously reverse memory reports if allowed to do so, and if so, under what conditions? Another line of research examines the role of subtle feedback manipulations in changing the willingness of subjects to report memories. These investigations will likely lead to similar paradigms that will be used while subjects are being scanned using functional magnetic resonance imaging (fMRI), where we are particularly interested in the role of prefrontal cortex (PFC) in memory retrieval and decisions about one's own memory. Examples of the types of research can be seen at <http://dobbinslab.psych.duke.edu/>

Duties of Research Assistant:

Preparing stimuli for experiments, running participants in experiments, coding and entering data, basic statistical analyses, literature reviews.

Name: Jan Duchek, Ph.D.

Office: Psych. 410B

Phone: 935-7445

E-mail address: jduchek@wustl.edu

General Area of Research:

Cognitive Psychology/Aging

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

Preferred Psyc 300 and Psyc 301

This research examines cognitive mechanisms that underlie the attention and memory deficits seen in healthy aging and early stage Alzheimer's disease (AD). Specifically, we are investigating attentional profiles that may be predictive of the early onset and progression of Alzheimer's disease. In addition, we are relating dimensions of personality and other individual difference factors that may correlate with attentional performance and early onset AD. This work is done in collaboration with the Cognitive Psychology Laboratory (David Balota, PI).

Duties of Research Assistant:

Literature reviews, design stimulus materials, collect data, analyze data.

Name: Stanley Finger, Ph.D.

Office: Psychology, 425A

Phone: 935-6513

E-mail address: sfinger@wustl.edu

General Area of Research:

History of neuroscience, history of medicine, history of psychology.

Prerequisites/Special Skills Required of Undergraduate Research Assistants:

Foreign languages, history + neuroscience courses.

Description of Research:

I write books and articles dealing with the history of the brain sciences. I am especially interested in the history of physiology at this time, specifically at: (a) the ancient theory of animal spirits, and (b) how electric fish ultimately led eighteenth-century scientists to think that the nerves might be electrical. In addition to this subject matter, I have recently focused my attention on Benjamin Franklin's contributions to medicine, on the history of neurology, and on ideas about mind and brain in the long eighteenth century.

Name: Leonard Green, Ph.D.

Office: Psychology, 415B

Phone: 935-6534

E-mail address: lgreen@wustl.edu

General Area of Research:

Choice and decision-making in people and animals (rats and pigeons); self-control (choice of a larger-later reward over a smaller-sooner reward) and impulsivity; behavioral economics; discounting of delayed and probabilistic outcomes.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

Commitment to careful, accurate, quality work. Independence, reliability, and initiative. Some experimental and relevant academic background preferred (e.g., Psy 301, Psy 361, Economics, Mathematics), but not required.

Description of Research:

Our research involves several areas. Some of these are:

1. **Self-Control:** Our behavioral model views self-control as choice of a larger, delayed reward over a smaller, sooner reward. Impulsiveness would be choice of the smaller-sooner over the larger-later reward. We are considering an experiment in which pigeons can make commitments to ensure receipt of the larger but delayed reward when their preference might otherwise be for the impulsive choice. We will be discussing a study in which self-control and impulsive choices are compared across different species of bird that have evolved under different ecological constraints. This may allow us to evaluate degree of self-control as an adaptive specialization.
2. **Human research on the discounting of delayed and probabilistic outcomes:**
 - A. **Changes in subjective value of a reward as delay to the reward and the probability of its receipt varies:** This research compares the mathematical form of the discounting function for delayed rewards with that for probabilistic rewards, and evaluates different mathematical functions that have been offered as descriptions of the discounting process (e.g., an economic exponential model; a hyperboloid function).
 - B. **Comparisons of the discounting function for delayed and probabilistic losses as well as for delayed and probabilistic gains:** This work evaluates the discounting functions for gains and losses, and explores the underlying decision-making processes.
 - C. **Discounting with different categories/types of rewards:** We are studying discounting when people make decisions between immediate and delayed rewards that are qualitatively different, in order to evaluate how the type and category of outcome (e.g.,

- money, pizza, CDs, dining dollars, iTunes --- conditioned/token reinforcers vs. directly consumable rewards) affects choice and discounting.
- D. Discounting real liquid rewards versus hypothetical directly consumable and monetary rewards: These experiments study the discounting of real directly consumable rewards, including qualitatively different liquid rewards (highly preferred vs. dispreferred) to evaluate whether a magnitude effect for reward quality will be obtained.
 - E. Does degree of discounting of directly consumable rewards (e.g., juice) vary as a function of degree of deprivation? That is, does impulsivity increase with deprivation, and, if so, is this a general, domain-independent effect or is it specific to the particular reward.
3. Reward discounting in animals:
- A. Research with human subjects indicates that delayed monetary rewards lose value at a higher rate for those of lower socio-economic status (SES). By manipulating the “income” of rats and pigeons, that is, the relative level of food deprivation, we are seeking to explore the species generality of the “income” effect found with humans.
 - B. We have developed a procedure to study probability discounting functions with pigeons. The results will allow us to understand how subjective value of a reward changes as the probability of its receipt varies, and to compare the results with those obtained in human studies. So, too, we will test for a magnitude effect: That is, will larger probabilistic amounts lose their value more steeply than smaller amounts, as has been found with humans discounting probabilistic monetary rewards.
 - C. We are examining in humans and pigeons how the addition of a common wait-time before the receipt of *both* the smaller, sooner reward and the larger, more delayed reward affects rate of discounting. Prior work studied choice between immediate, smaller and delayed, larger amounts. The current work evaluates discounting when choice is between smaller, sooner and larger, more delayed amounts to establish the generality of the underlying decision-making process. Initial results indicated that humans and pigeons were affected in different ways by the addition of the common wait-time. Our more recent studies indicate that the way in which the common wait-time is signaled is fundamental in determining how rate of discounting is affected, and similarities in discounting are apparent across species. This work now is being extended to probability discounting in which both options are probabilistic: rather than choice being between certain, smaller and probabilistic, larger amounts, we now are studying choice between more-probable, smaller and less-probable larger amounts.
 - D. Most research with humans uses conditioned reinforcers (e.g., points, monetary rewards), whereas animal research uses primary reinforcers (e.g., food). It is possible that species differences observed are due to this difference in reward? We are developing a new project in which pigeons will be discounting conditioned reinforcers (tokens) thereby evaluating whether any inter-species differences are still observed.

Duties of Research Assistant:

For the animal studies: handling and weighing of the animals (rats and pigeons); running them in the experiments; recording data; plotting results. For the human studies: scheduling participants; running the experiments; recording and analyzing data. Careful monitoring of the experiments is essential. Attendance at lab research meetings and reading of assigned material required.

Name: Sandra Hale, Ph.D.

Office: Psychology, 423B

Phone: 935-5397

E-mail address: sshale@wustl.edu

General Area of Research:

Cognitive changes associated with development during childhood and aging during late adulthood. In particular, we are studying age-related changes in speed of processing, working memory, learning, and higher-order cognitive abilities across the life span from a perspective influenced by both traditional cognitive psychology and current research concerning brain structure and brain function.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

Coursework in research methods (i.e., Experimental Psychology) preferred. Coursework in one of the following areas would be helpful: cognitive psychology, developmental psychology, or the psychology of aging. Working knowledge of spreadsheets (e.g., EXCEL), word processing, photo-shop programs and/or statistical software (e.g., SPSS or SYSTAT) is desirable.

Description of Research:

The studies conducted in our Cognitive Development Laboratory usually include tests or measurements of processing speed, working memory, learning, and higher reasoning abilities. Participants in these studies include children as young as 7 years and extend to adults up to 100 years old. Data collection primarily takes place in the laboratory. Virtually all data is collected via computer programs developed in our laboratory.

Duties of Research Assistant:

Experiment preparation (including the designing and developing of stimuli), data collection (including scheduling and testing participants), data analysis (including data entry and statistical analysis), and participation in lab meetings. Occasional duties include poster preparation and library research.

Name: Denise Head, Ph.D.
Office: Psychology 339; Head Lab – 115/117
Phone: 935-8732
E-mail address: dhead@artsci.wustl.edu

General Area of Research:

Neuropsychology of aging, structural and functional correlates of cognitive aging,

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

Familiarity with computers, good social and communication skills, and basic knowledge of neuroanatomy are helpful.

Description of Research:

The overall goal of the research is to examine the neural correlates of cognitive aging. One line of research uses MRI-based measures of regional brain volumes in conjunction with behavioral measures to gain insight into the pattern of brain and cognitive changes that occur with aging. A major focus is on frontostriatal and hippocampal circuits and the role of executive control processes in cognitive skill acquisition. In addition, we are examining the role of cardiovascular health factors, such as hypertension and exercise, on cognitive and brain aging. A developing line of research is examining age differences in route learning using virtual reality (VR) technology. The goal of this research is to take advantage of VR to examine the specific aspects of route learning that are difficult for older adults and to combine VR with fMRI to assess for neural correlates of the age-related difficulties.

Duties of Research Assistant:

Students can participate in multiple phases of research projects depending on experience and interest. Involvement may include literature review and background reading, experiment preparation, behavioral testing, data processing and interpretation, participation/presentation in lab meetings. In addition, students will potentially have the opportunity to design and implement an independent project.

Name: Tamara Hershey, Ph.D.
Office: 2105 East Building, Neuroimaging Lab
Phone: 362-5593
E-mail address: tammy@wustl.edu

General Area of Research:

- 1) Neuropathophysiology underlying cognitive and mood aspects of Parkinson's disease and other dopaminergic disorders.
- 2) Neuropathophysiological and behavioral effects of obesity and diabetes.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

- 1) Computer and statistics knowledge desirable
- 2) Ability to interact professionally with children and/or older adults in clinical and research settings

Description of Research:

Using neuroimaging (MRI, fMRI and PET) and neuropsychological techniques, we study:

- 1) effects of Parkinson's disease on cognitive and mood processes; how deep brain stimulation of the subthalamic nucleus affects brain function.
- 2) effects of severe hypoglycemia and hyperglycemia on the brain in children and adults with type 1 diabetes mellitus.
- 3) neurodevelopmental and neurodegenerative changes in Wolfram syndrome
- 3) relationship between obesity and dopamine receptors in the brain, their relationship to behavioral features and weight loss.

Duties of Research Assistant:

- 1) Scoring, coding, analyzing and entering cognitive data
- 2) Processing and analyzing neuroimaging data
- 3) Occasionally testing patients and controls with neuropsychological measures

Name: Barry Hong, Ph.D.

Office: Psychiatry, Wohl Clinic Bldg., 4940 Children's Place, room 330

Phone: 362-4270

E-mail address: hongb@psychiatry.wustl.edu

General Area of Research:

My research areas are the evaluation of organ recipients and living donors. In particular, past studies have looked at the characteristics of organ donor families and follow-up studies of living donors. In addition, I have been conducting disaster research with Carol North, M.D., and recently, an NIH study of the pain syndrome, interstitial cystitis.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

No particular skills are required. An interest in work sufficient to contribute to an ongoing research project or the development of a project that can be initiated and completed by the student themselves.

Description of Research:

Students can either be involved in present ongoing projects or can develop with me small projects in which they can execute themselves fully.

Duties of Research Assistant:

Duties can be discussed with potential students on an individual basis. These are voluntary without funding.

Name: Larry Jacoby, Ph.D.
Office: Psychology, 425B
Phone: 935-6795
E-mail address: lljacoby@artsci.wustl.edu

General Area of Research:

Memory, cognitive control, automatic (unconscious) influences, effects of aging.

Prerequisites/Special Skills Required of Undergraduate Research Assistants:

Varies with the particular project.

Description of Research:

Research on the following topics is planned:

1. Development of procedures to separate cognitively-controlled from automatic influences of memory.
2. Training of recollection as a means of treating memory deficits in later life.
3. Learning of natural categories such as families of birds (e.g., learning to identify buntings)

Duties of Research Assistant:

Typically involves scheduling participants, collecting data, coding data, and assisting with data analysis.

Name: Alan J. Lambert, Ph.D.
Office: Psychology, 319B
Lab: Attitude and Decision Making Laboratory (311/313)
Phone: 935-7176
E-mail address: alambert@artsci.wustl.edu

During the 2011-2012 academic year, our lab will be investigating various aspects of social psychological processes, including:

- **Emotion and social information processing:** how moods can bias people's perceptions of their social world
- **Belief in a just world:** how BJW can influence, and be influenced by, situational factors
- **Stereotyping, prejudice, and discrimination:** How preconceived beliefs and assumptions about social categories can affect how we respond to single group members.
- **Automatic and controlled processes:** how these processes can guide judgment and behavior
- **Political ideology and social judgment.**

Prerequisites/Special Skills Required of Undergraduate Research Assistants:

Some basic computer skills would be helpful but is not mandatory.

Duties of Research Assistant:

Assist in the planning of experiments, "running" the experiments with undergraduates, helping to enter, analyze, and interpret data from experiments.

Name: Randy Larsen, Ph.D.

Office: Psychology, 206

Phone: 935-6567

E-mail address: rlarsen@artsci.wustl.edu

General Area of Research:

Emotion in general, with specific interests in how people cognitive process emotional stimuli, and whether emotional stimuli (words, pictures, objects such as spiders) evoke specialized cognitive processes.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

High level of motivation and responsibility.

Description of Research:

Currently I am studying the interaction of cognition and emotion. For example, do some kinds of emotional stimuli attract and hold attention longer than non-emotional stimuli? Do we have lower perceptual thresholds for detecting threatening stimuli in our environments (i.e., can we spot a snake in the grass faster than we could spot a stick in the grass?). Or why is our memory for how we felt about some event longer lasting than our memory for the facts of the event? Are subliminal effects stronger for emotional stimuli than factual stimuli? In what other ways do “hot” and “cold” cognition differ? In the past I have also studied topics such as mood variability, vulnerability to positive and negative moods, and strategies for the self-management of emotion and mood and still have some interests in these areas of research. Some emphasis is on understanding how and why individuals differ from each other in terms of their emotional lives.

Duties of Research Assistant:

Assist with running subjects, coordinate with graduate students, attend lab meetings

Name: Joan Luby, M.D. Professor of Psychiatry (Child)
Office: Early Emotional Development Program
18 South Kingshighway Suite L101 and L109
Phone: 286-2730
E-mail address: lubyj@wustl.edu

General Area of Research: Developmental Psychopathology and Emotional Development in Early Childhood—Preschool Children/ Mood Disorders

Prerequisites/Special Skills Required of Undergraduate Research Assistants:

Assistants must be junior or senior level students interested in the emotional development of children. All students must have completed 6 hours of upper level psychology courses or discuss course experience with Dr. Luby. Because of the intense training required to work with this unique study sample, we would like students to make a 2-semester commitment to the lab and be available to work at least two 5 hour shifts per week. Learning our procedures is time consuming and students often take most of the first semester simply learning the procedures in the lab. Thus students gain better experience by spending two semesters in the lab. Often, in the second semester students are given more responsibility and have the opportunity to learn new skills.

Description of Research:

The EEDP has several on-going, grant funded studies. Students are primarily involved with a NIMH funded longitudinal study of mood disorders (depression and mania) in children. At the beginning of the study, children were preschool ages 3.0-6.0 from a large community based sample. We are now in a 5 year follow-up phase of that study, with our original sample children, current ages 9.0-14.0. Assessments include dyadic observational tasks as well as cognitive and neuropsychological, age appropriate measures. Students may also be involved with assisting in data collection and data entry of a grant funded brain imaging (MRI) study of preschoolers with and without symptoms of depression. Research assistants will get “hands on” experience using state of the art assessment techniques, as well as current trends in diagnostic assessment and diagnostic criteria for mental disorders in young children. Students will become familiar with the logistics of conducting research and with the administration of study protocol in a research setting.

Duties of Research Assistant:

Undergraduate Research Assistants have a very important role in our research. Students’ responsibilities will include assisting in the collection, entry, and transcription of data obtained from parent and child assessments. Students will also have various administrative duties such as organizing research related materials, assisting in the quarterly newsletter, and obtaining the most current published data. On occasion, students may be asked to assist with subject childcare. Students may be relied upon heavily to assist in set-up and will take an active role in assessments.

Name: Patrick Lustman, Ph.D.

Office: Psychiatry, 660 S. Euclid Ave

Phone: 362-2428

E-mail address: lustmanp@wustl.edu

General Area of Research:

Mind-body interactions in health and disease with a focus on the interaction of psychiatric disorders and diabetes.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

Interest in research, ability to work with people, some knowledge of DSM-based psychiatric diagnosis, computers and statistics.

Description of Research:

Our research group studies the impact of psychiatric disorders, particularly affective illnesses, on the risk and progression of cardiometabolic diseases. As these mind-body interactions frequently are bidirectional in nature, we also study the impact of cardiometabolic disease factors on the risk and progression of psychiatric disorder. The work seeks to identify biopsychosocial mechanisms involved in these mind-body interactions. Clinical trials provide a setting for these investigations and allow us to contribute to efforts to improve the potency of psychiatric and psychological treatments in persons with medical comorbidity. Our current project is a randomized, placebo-controlled depression treatment trial to determine whether the addition of insulin-sensitizers (metformin) to conventional antidepressant medication treatment can improve the prognosis of depression.

Duties of Research Assistant:

Will assist the PI in conducting research projects involving the interaction of diabetes and depression. Tasks include data entry and management, miscellaneous filing and clerical tasks. Assist in literature searches and manuscript preparation as assigned.

Name: Mark McDaniel, Ph.D.
Office: 235 F
Phone: 935-8030
E-mail address: mmcdanie@artsci.wustl.edu

General Area of Research:

Human learning and memory

Prerequisites/Special Skills Required of Undergraduate Research Assistants:

Comfortable interacting with people; attentive to details; like working with numbers; course work in statistics useful but not required

Description of Research:

Prospective memory. A common memory task in daily activities is remembering to perform some intended action at a particular point in the future (termed prospective memory). We have developed several laboratory paradigms to study prospective memory, and we are using these paradigms to conduct experiments investigating different aspects of this important memory process.

Encoding and Retrieval Processes in Memory. We study the kinds of encoding and retrieval processes that support good memory. Much of our work focuses on educationally relevant materials and tasks, including how different encoding tasks can enhance recall for low-ability versus high-ability readers. In a similar vein, we are focusing on the effects of testing on subsequent learning and retention as it applies to educational and classroom applications (test-enhanced learning)

Learning Function Concepts. This kind of concept involves a relationship between a set of continuous input values and output values, and is a ubiquitous concept learning task, particularly in sciences. We are evaluating associative and rule models of function learning by examining extrapolation (predicting new values outside the range of training) after learning trials. We are also exploring differences across individuals in the prominence of associative vs. rule learning processes.

Duties of Research Assistant:

Assist with data collection (e.g., testing subjects in experiments), scoring data, entering data into computer files, materials development, and participate in interpretation of results.

Name: Kathleen McDermott, Ph.D.

Office: Psychology 343 B

Phone: 314-935-8743

E-mail address: Kathleen.McDermott@wustl.edu

General Area of Research:

Human memory

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

We prefer students with strong interests in cognitive psychology. We will consider those without extensive class backgrounds in psychology.

Description of Research:

The work in my laboratory focuses on human memory, which is studied primarily with behavioral (psychological) techniques, although we also use neuroimaging techniques (specifically, functional magnetic resonance imaging, or fMRI). One line of research examines how practicing retrieval of a set of information facilitates our ability to remember it at a later time. Why does this occur?

Another question of interest centers on the relation between remembering and envisioning the future in a specific way. For example, when you remember last New Year's Eve and envision this upcoming New Year's Eve, you draw upon very similar processes. In essence, you use memory to construct viable scenarios that could unfold in the future. Our lab is interested in understanding more about the relation between remembering and future-thinking.

Duties of Research Assistant:

Research assistants will assist graduate students or postdoctoral fellows in conducting research projects. Typically, the undergraduate research assistant will be asked to do some background reading in a certain topic area, will be included in discussions with the graduate student(s) or postdoc(s) and with Dr. McDermott involving the design of a new experiment, and will help to test participants, code data, and analyze data. Appropriate guidance is given at all stages, such that the most important qualities we look for are eagerness to learn about the research process. Although some knowledge of statistics or experimental design can be helpful, they are by no means necessary for a successful semester in the lab.

Name: Amy McQueen, Ph.D.

Office: Division of Health Behavior Research, Washington University
School of Medicine, 4444 Forest Park Ave. St Louis 63108

Phone: 314-286-2016

E-mail address: amcqueen@dom.wustl.edu

General Area of Research:

Social Psychology and Public Health Research focused on Health Behaviors, specifically Cancer Prevention

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

- Junior or senior psychology major with a minimum 3.0 GPA
- Excellent organization and communication skills
- Attention to details

Description of Research:

Health communication research trial promoting colon cancer screening among adults 50-75 years old in St. Louis.

Duties of Research Assistant:

1. Data entry
2. Coding written survey responses
3. Assisting participant recruitment efforts in area doctor's offices
4. Literature review

Advanced research assistants may assist with:

1. Administering telephone surveys
2. Meeting participants for the in-person study visit
3. Basic data analysis

Name: Lori Markson

Office: Psychology 235E

Phone: 935-3482

E-mail address: markson@wustl.edu

General Area of Research:

Cognitive development

Prerequisites/Skills Required of Undergraduate Research Assistants:

A course in Developmental Psychology, Cognitive Psychology, or Cognitive Science is useful, but not essential. Primary requirement is an interest in experimental research, and in particular, cognition in children. Experience with children is not necessary, but you should be comfortable interacting with young children, parents, and preschool teachers.

Description of Research:

Research in the Cognition & Development Lab investigates how infants and children think, reason, and learn about the world around them, with a focus on the development of conceptual and social-cognitive capacities. Some of our current projects explore how children learn the meanings of new words, social reasoning in infants and toddlers, the development of basic economic behaviors, and children's knowledge of linguistic and cultural conventions.

Duties of Research Assistant:

Research assistants typically participate in all aspects of the lab including building/maintaining our participant database, recruiting participants, experimental design and stimuli construction, testing children in studies, data analysis, and attending lab meetings where current research is discussed. A minimum 1-year (two-semester) commitment is required.

Name: Tom Oltmanns, Ph.D.

Office: Room 219B

Phone: 935-6595

E-mail address: toltmann@artsci.wustl.edu

General Area of Research:

Multiple-Source Assessment and Longitudinal Course of Personality Disorders

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

At least six credits of psychology, and preferably a course in methods or experimental design and statistics.

Description of Research:

I am interested in the assessment of personality disorders, particularly with regard to discrepancies between people's descriptions of themselves and the ways in which they are described by others. Most of my work lies directly at the intersection of personality psychology and psychopathology research. It depends heavily on methods and concepts developed by investigators studying interpersonal perception, and it is concerned with the link between personality and consequential outcomes in people's lives. My lab is currently conducting a prospective, longitudinal study of the stability and impact of personality pathology in later life. The project is concerned with connections among personality traits, personality disorders, health, and social adjustment in a representative, community-based sample of 1,600 persons between the ages of 55 and 64---those approaching the challenges of later life. It will identify ways in which personality and personality disorders influence the ability to adapt successfully to important life transitions. For more information, see: <http://psychweb.wustl.edu/node/319>

Duties of Research Assistant:

Research assistants may become involved in a number of activities. Most involve the multi-faceted process of data collection. Responsibilities of an undergraduate RA include a variety of tasks, ranging from phone recruiting and administrative duties, to running participants follow-up and attending our weekly lab meetings. Because our lab offers a wide range of opportunities for undergraduates, we will attempt to cater to your strengths as best we can. We expect that each RA will devote a minimum of 4 hours per week to the project.

Name: Michele Pergadia, Ph.D.

Office: Washington University School of Medicine, Dept. of Psychiatry

Phone: (314) 286-2270

E-mail address: pergadim@psychiatry.wustl.edu

General Area of Research:

Nicotine Withdrawal and Major Depressive Disorder

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

Organizational skills and common knowledge of computer applications.

Description of Research:

The goal of my research is to develop better measures of nicotine withdrawal and related behavior (major depression) using interview and laboratory based measures of mood and physical symptoms in humans. An additional important goal of this research is to characterize fluctuations in the experience of nicotine withdrawal across time, and whether certain genes might be associated with nicotine withdrawal and major depression.

Duties of Research Assistant:

This research experience is designed to introduce students to various aspects of psychological research. In addition to participating in many research activities within our research group (see list below) and the Department of Psychiatry, they will also work with me to develop specific testable hypotheses from a secondary data-analysis perspective. With guidance, they can review assessments collected within a laboratory study of nicotine withdrawal, conduct a literature review based on an idea formulated within that context, pull related articles, run basic statistical analysis and write a draft of a paper surrounding their idea.

Training Activities in which students can participate:

Human Studies Training

HIPAA Training

Psychiatry Grand Rounds/Research Seminar

Literature searches

Reviewing journal articles

Meetings with other Faculty Members and Post-Doctoral Fellows

Name: Heather Rice, Ph.D.

Office: Psychology, 416C

Phone: 935-6514

E-mail address: hrice@wustl.edu

General Area of Research:

Cognitive psychology, human memory, mental imagery

Prerequisites/Special Skills Required of Undergraduate Research Assistants:

Experience with computers preferred, but not required.

Description of Research:

My research primarily examines the mental imagery that individuals experience when recalling events. Specifically, I examine the how first-person perspective images (i.e., imaging the event from your own eyes) and third-person perspective images (i.e., imaging the event as though you were an outside observer) affect the way people remember events. This research will focus primarily on how using different types of imagery affects the accuracy and content of a memory, as well as how it affects the way you experience the event during retrieval.

Duties of Research Assistant:

Preparing stimuli for experiments, running participants in experiments, coding and entering data, basic statistical analyses, literature reviews.

Name: Thomas Rodebaugh
Office: 353B
Phone: (314) 935-8631
E-mail address: Rodebaugh@wustl.edu

General Area of Research:

Psychopathology and treatment of social phobia and the anxiety disorders in general; cognitive behavioral therapy; psychotherapy outcome and process; mindfulness, acceptance, and related psychotherapies.

Prerequisites/Special Skills Required of Undergraduate Research Assistants:

The following skills are helpful, but not required or expected: (a) Having taken one or more classes related to clinical psychology (e.g., Abnormal Psychology). (b) Computer skills, including standard Microsoft software, as well as data entry and some familiarity with the use of statistical packages (such as SPSS). (c) Experience with clinical populations.

Description of Research:

Several research projects are ongoing. Here is one primary area of current work:

The behavioral economics of social anxiety as related to interpersonal processes. A wide variety of recent studies (by other researchers) across psychology, neuroscience, and economics have investigated behavioral economic games to better understand human behavior. Several studies associated with our laboratory involve attempts to extend these findings to our understanding of social anxiety. We are particularly interested in using these techniques to understand how social anxiety affects friendships and romantic relationships.

The research conducted in the lab varies semester to semester and depends greatly on the interest of current graduate students. Updated descriptions of our research interests can be found at any time on www.anxlab.com.

Duties of Research Assistant:

Basic duties include data entry, data management, and running experimental sessions in which undergraduates take part. Research assistants also attend laboratory meetings. More advanced research assistants will take on additional duties commensurate with ability and demonstrated level of responsibility. The most senior research assistants may assist with studies involving clinical populations (e.g., people with social phobia) and matched control participants.

Name: Henry L. Roediger, III, Ph.D.

Office: Psychology, 235C

Phone: 935-4307

E-mail address: roediger@wustl.edu

General Area of Research:

Cognitive Psychology, particularly human memory.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

Interest in processes of human memory; willingness to work hard and carefully.
Completion of Psychology 300 and 301 is preferred, but not required.

Description of Research:

My research interests lie in human learning and memory. Although I am interested in many different topics in this broad area, my current research is primarily concerned with several interrelated issues.

A question of central interest (in my lab, but also in the field at large) is how people can improve their memories. What strategies for learning can show significant improvements? Over the years, we have studied many factors that enhance retention.

A closely related line of research is concerned with applying what researchers know about learning and memory to education. In particular, laboratory studies have shown many strategies and techniques that promote better learning and retention, yet not many of these have made their way to educational practice. A second program of research attempts to bridge from laboratory studies to educational practice to enhance student learning. We are also involved in collaborations with a professor in the WU Medical School on how to improve medical education by applying techniques from cognitive psychology.

Another line of research concerns memory illusions and the occurrence of false memories. Memory illusions are cases in which recollection of an event systematically deviates from the event's actual occurrence in the past. In the most striking case, people remember events that never happened to them. My students and I have developed several laboratory methods of inducing false memories and we are interested in uncovering the processes involved. Some of this research has practical applications (e.g., for eyewitness testimony in legal cases).

I am also interested in social and collective memory processes, of how processes may differ when people remember as part of a group rather than when alone. Collective memory refers to how different groups of people use salient events from the past as indicators of their identities, for example, how most Americans identify with events from the Revolutionary War in 1776 and from more recent events such as 9/11. I am involved

in some studies of how various groups of people can remember and identify with quite different versions of the same historical events.

I am also interested in implicit memory, or expression of past experiences in current behavior without the experience of conscious remembering. That is, implicit memory processes arise when previous events affect ongoing behavior without people being aware of the influence. Memory of prior events is exhibited indirectly (or implicitly), unlike our usual conception of memory as being the effortful recollection of information from the past. My students and I study several different ways in which memory operates in this indirect manner. Such implicit memory tests reveal strikingly different patterns of results from standard explicit memory tests (such as recall and recognition) and we are interested in knowing why.

Duties of Research Assistant:

As much as possible, undergraduate assistants help in all phases of their research: preparing the experiments, designing materials, testing subjects, and scoring and analyzing results. Students are expected to do considerable background reading to understand the project and to write an APA-style paper at the end of the course.

Name: John Rohrbaugh, Ph.D.
Office: Psychiatry, 4625 Lindell Blvd., Suite 200
Phone: 286-1369
E-mail address: jwrohrba@wustl.edu

General Area of Research:

Studies of the physiology associated with emotion, stress, and cognition: Basic studies, applications, and effects of alcohol and nicotine.

Prerequisites/Special Skills Required of Undergraduate Research Assistants:

Familiarity with PC computers and common application software.

Description of Research:

There are three major current research themes:

- 1) Development of novel laser-based methods for assessing the physiology of emotion and stress. The laser method appears to be capable assessing advanced aspects of cardiovascular and muscular function, and to have promise in a number of applications including the assessment of fatigue, deception and threat, as well as clinical applications.
- 2) Application of camera-based assessment of eye movements to the study of cognition, attention and fatigue.
- 3) Study of the effects of common drugs (including alcohol and nicotine) on cognitive, psychomotor and emotional functions. The responses are measured in multiple performance, subjective report and physiological response systems, including EEG, cardiovascular, and motor systems. Additional studies are focusing on the genetic aspects of substance abuse and possible underlying individual differences in behavior and brain function.

Note: Research labs are in the vicinity of the Medical School.

Duties of Research Assistant:

General duties including data processing, subject recruitment and testing, and report generation.

Name: Mitchell Sommers, Ph.D.
Office: Psychology, 417A
Phone: 935-6561
E-mail address: msommers@artsci.wustl.edu

General Area of Research:

Speech perception and auditory processing in young listeners, older adults, and Alzheimer's patients. Hearing impairment and its effects on speech perception.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

Some experience using computers and software packages (word processing, spread sheets) would be useful but is not essential.

Description of Research:

My research focuses on establishing how changes in both cognitive and auditory processing abilities contribute to speech perception difficulties in older adults and individuals with Alzheimer's disease (AD). The goal of the investigations is to determine the specific sensory and cognitive capacities that decline with age and AD and specify how such changes might affect speech perception. In addition to examining older listeners and patients with AD, the experiments also examine auditory and speech processing in cochlear implant patients. Current work in the lab is now exploring how and why speech perception improves when individuals can both see and hear a talker, compared with listening alone.

In addition to work on speech perception, I have also recently started investigating factors that can improve people's ability to learn vocabulary in a second language. This work is directed primarily at examining how acoustic variability (e.g., having words spoken by one talker versus many talkers) can promote second language vocabulary acquisition.

Duties of Research Assistant:

The duties of research assistants in my lab include scheduling and conducting experimental sessions with younger and older adults, scoring experimental results, and doing some data analysis.

Name: Michael J. Strube, Ph.D.

Office: Psychology, 317A

Phone: 935-6545

E-mail address: mjstrube@artsci.wustl.edu

General Area of Research:

The self, applied decision making, research design and statistics.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

High motivation, attention to detail, willingness to learn.

Description of Research:

My current research is focused on the implications of self-knowledge for self-esteem, particularly the flexible ways that people construct their identities to maintain positive views of themselves. I am also investigating the impact of recent performance changes on self-esteem, questionnaire response biases, measurement of personality disorders, and stimulus properties that affect implicit measures.

Duties of Research Assistant:

Research assistants help with all phases of research including library work, development and testing of experimental material, conducting experimental sessions, data management, and report preparation.

Name: Jolene R. Sy, Ph.D.

Office: Saint Louis University, Tegeler Hall Rm. 208

Phone: (314) 977-2715

E-mail address: jsy@slu.edu

General Area of Research:

Evaluation of behavior analytic principles and procedures (delayed reinforcement, choice, assessment and treatment of problem behavior) with children with autism and other developmental disabilities.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

None, although it is recommended that students have taken a course in Learning.

Description of Research:

Students will work on one of three research projects.

The first study involves the evaluation of the necessity of change-over delays when arranging reinforcement contingencies for appropriate behavior. Change-over delays prevent chains of responding (response A followed by response B) from being accidentally reinforced by arranging contingencies that require a certain amount of time to pass following a nontarget response before a target response can produce reinforcement. In the current study, we are assessing whether a certain amount of time must elapse following problem behavior before an appropriate response can be reinforced.

The second study involves an evaluation of response maintenance under various probabilities of delayed reinforcement. Delayed probabilistic reinforcement is a common phenomenon (e.g., a parent tells the child that s/he will receive access to a video game after a 15-min drive home, but then only occasionally remembers to follow through with this promise).

The third study evaluates choice behavior when the more desirable consequence is associated with delayed punishment.

Duties of Research Assistant:

Research assistants will learn to collect data during experimental sessions. Research assistants also will be trained to work with children with autism and other developmental disabilities, and may, following training, be asked to serve as therapists during experimental sessions. Research assistants should be prepared to devote 1-2 hrs/day, 2-3 days a week to research-related activities. Activities will take place at local elementary schools or agencies that serve individuals with special needs.

Name: Rebecca Treiman, Ph.D.
Office: Psychology, 235H; Reading and Language Lab
Phone: 935-5326
E-mail address: rtreiman@wustl.edu

General Area of Research:

Reading, spelling, and language skills in children and adults.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

Reliability, attention to detail, ability to work well with children (for the studies with children). A car would be helpful for some of the studies with children, which are carried out at local schools and daycare centers.

Description of Research:

The research focuses on the cognitive and linguistic skills that are involved in reading and spelling. Participants in the studies range from 3 year olds to college students. Some of our ongoing studies look at children's spellings. Other studies analyze data that have already been collected and that are available on computerized data bases. For example, we look at parent-child conversations about writing and reading and at data on how long it takes adults to read different kinds of words. Still other studies involve testing college students in spelling and reading tasks.

Duties of Research Assistant:

The undergraduate RA will help in the testing of participants or will help in analyses of already collected data.

Name: Simine Vazire
Office: Psychology 353
Phone: 935-5215
E-mail address: svazire@artsci.wustl.edu

General Area of Research:

Personality and self-knowledge.

Prerequisites/Special Skills Required of Undergraduate Research Assistants:

Students must be motivated, hard-working, and responsible, and have a strong interest in personality/social psychology.

Description of Research:

Our research is on the accuracy of self- and other-perceptions of personality. Current work examines differences between how people see themselves, how they are seen by others, and how they behave. The overall goal is to understand the limits and function of self-knowledge and how feedback affects self-knowledge and personality. For example, do people know how others see them? Do people see themselves more accurately after watching a video of themselves? What are the differences between how people see themselves, how they are seen by their friends, and how they are seen by their family members or romantic partners? Which perspective is most accurate?

Duties of Research Assistant:

Research assistants will contribute to the following activities:

- Designing and planning new studies
- Running studies in the lab (e.g., running participants)
- Coordinating online studies (e.g., data management, emailing participants)
- Coding behavior from videos
- Data entry

All research assistants will also participate in weekly lab meetings which will include discussions of weekly reading assignments on personality research.

Preference for research assistantships is extended to students who can commit to two semesters in the lab.

*Preference for research assistants who are familiar with webpage design or programming.

Name: Desirée A. White, Ph.D.
Office: Psych., 321A; Neuropsychology Research Lab - 307/309
Phone: 935-6511
E-mail address: dawwhite@wustl.edu

General Area of Research:

In the Developmental Neuropsychology Research Laboratory we explore cognitive and clinical neuropsychological issues. The focus of our research is executive abilities (e.g., working memory, inhibitory control, strategic processing/planning, response monitoring) in individuals with frontal brain dysfunction, with an emphasis on disruptions in the development of executive abilities during childhood. Populations of particular interest include children with disorders such as phenylketonuria, stroke related to sickle cell disease, traumatic brain injury, and premature birth. We are also conducting studies of executive abilities in adults with stroke. In addition to research with individuals with brain dysfunction, we have ongoing studies examining the typical development of executive abilities.

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

Prerequisites include successful completion of Statistics and Experimental Psychology courses. Research assistants should have an interest in the neuropsychology and the relationships between brain function, integrity, and cognition. A willingness to work with children across a broad age range and with a variety of disorders and disabilities is required. Special skills include familiarity with basic computer operating systems and programs.

Description of Research:

Most of our research is conducted with medical patients recruited through the Washington University School of Medicine. Collaborations with programs in Pediatrics, Neurology, Medical Genetics, Hematology/Oncology, Occupational Therapy, and Radiology are ongoing. A primary goal of our research is to elucidate the neural mechanisms underlying the development of executive abilities, with a focus on the frontal lobes and the white matter that interconnects the frontal lobes with distal brain regions. A variety of neuropsychological tools are used in our research. Standard neuropsychological measures are used to estimate levels of general cognitive and executive ability, whereas experimentally designed measures are used to provide a finer level of detail as to the cognitive processes contributing to the development of executive abilities. Magnetic resonance imaging (MRI) is used to examine relationships between brain integrity/function and executive abilities.

Duties of Research Assistant:

Research assistants are expected to undertake a full range of research responsibilities, including participation in the following activities:

- Experimental task development
- Administration of standard and experimental tasks to research participants
- Participant scheduling
- Data entry and analysis
- Literature search and review

Name: Denise Wilfley, Ph.D.

Office: 4570 Children's Place, (1st Floor), Medical School Campus

Phone: 314-286-2083

E-mail address: wilfleyd@psychiatry.wustl.edu

Contact: Heather Waldron at: waldronh@psychiatry.wustl.edu

General Area of Research:

Dr. Wilfley's research program at Washington University focuses on the causes, prevention, and treatment of eating disorders and obesity, as well as the interface of the eating disorders and obesity fields. Both disorders are significant and cause marked functional impairment and reduced quality of life. Eating disorders are associated with considerable impairment in health and social adjustment, and obesity, which is increasing at alarming rates worldwide, carries major health consequences such as diabetes, heart disease, hypertension, gallbladder disease, psychosocial problems, and certain cancers. Dr. Wilfley's laboratory integrates clinical and research components, and offers students a unique opportunity to obtain experience in both aspects of psychology, as well as contribute to an exciting and innovative line of research.

Prerequisites/Special Skills Required of Undergraduate Research Interns:

Students must be responsible, mature, and willing and motivated to assist on a variety of projects and tasks. A professional demeanor and interpersonal skills are essential, as students will be working in a clinical environment and as a member of Dr. Wilfley's research team. Organizational skills and computer literacy are also helpful. A psychology major or minor is preferred but not required.

Description of Research:

Dr. Wilfley's research team is involved in a wide range of studies within the fields of eating disorders and obesity. Currently, the main focus of research work in her lab centers around several NIH-studies: The long-term objective of the NIMH-funded study, Family therapy in the treatment of adolescent anorexia nervosa, is to enhance the treatment and outcome of anorexia nervosa (AN) and to develop a network of research and training centers to support innovative research in AN.

The NIMH-funded Preventing Eating Disorders and Reducing Comorbidity uses an internet-based intervention to reduce the onset of eating disorders among a high risk group of college-age women. We are currently conducting follow up assessments with individuals who participated in the intervention. We are also testing a similar program with high school students in the St. Louis area. In particular, the Staying Fit intervention

is designed to help students lose weight and increase their healthy behaviors or maintain their healthy eating and activity behaviors. The intervention is being delivered in high school classrooms.

The NICHD-funded Childhood Obesity: A Maintenance Approach examines the efficacy of an enhanced social facilitation treatment for the long-term maintenance of weight loss in children. Dr. Wilfley's extensive work with such diverse populations provides a variety of opportunities for students wishing to gain knowledge and experience in patient-oriented research.

The NCMHD-funded POWER-UP: Preventing Weight Gain and Enhancing Relationships with Underserved Populations will examine the efficacy of Interpersonal Psychotherapy for the prevention of excessive weight gain (IPT-WG) in African-American and Latina girls. Results from focus groups will be used to modify IPT-WG to be more culturally specific. Staff members from community health centers will then be trained to deliver modified IPT-WG as part of a treatment pilot study. Results will inform future dissemination of empirically-supported treatments into community-based clinics.

Treatment Options for type 2 Diabetes in Adolescents and Youth (TODAY) is a NIDDK-funded study examining the effects of metformin alone, metformin plus rosiglitazone, and metformin plus an intensive lifestyle intervention on health outcomes associated with type 2 diabetes mellitus.

The NIH-funded study, Food for Thought: A Randomized controlled trial for parents of young overweight children (currently funded through ICTS), uses a novel mode of treatment delivery to make pediatric weight loss treatment more accessible to the public through internet intervention targeting parents of preschool overweight children.

Duties of Research Assistant:

Student research assistants have always been an integral part of Dr. Wilfley's lab, fulfilling a range of responsibilities including participant recruitment, participant screening, organization of study materials, participant monitoring, data collection and management, literature searches, and clerical or administrative tasks. A student's degree of involvement is directly related to his or her level of interest, skills, and dedication.

Given that the lab's research projects are in different stages of development, some projects may be unavailable at the time of inquiry. We appreciate your flexibility in this matter.

Name: Jeff Zacks, Ph.D.
Office: Psychology, 419B; Dynamic Cognition Lab – 439D
Phone: 935-8454
E-mail address: jzacks@artsci.wustl.edu

General Area of Research:

Cognitive psychology, cognitive aging, understanding video, mental spatial transformations, fMRI

Prerequisites/Special Skills Required of Undergraduate Research

Assistants:

Experience with computers, Psychology 301, Psychology 360 are all helpful but not necessary.

Description of Research:

Our research focuses on two topics in human cognition: *event understanding* and *spatial cognition*. In both cases, we use behavioral and neuroscience methods.

One line of work looks at how people understand events. In these experiments we ask people to watch computer-driven video of everyday activities and respond to it (by pressing keys, by talking, by stopping and starting). We also ask people to learn how to perform new tasks based on the video. Right now, we are especially interested in how performance changes over the adult lifespan.

Another project examines how the brain processes spatial relationships between the body and external objects. In these experiments people look at pictures of objects, animals, and human bodies on a computer screen and make spatial judgments about them. We measure brain activity and the time it takes them to respond as aspects of the stimulus and task are varied.

Duties of Research Assistant:

Students will be involved in all aspects of the research: literature review, data collection, data analysis and interpretation. Students who are involved with the lab for more than a semester will have the opportunity to develop projects of increasing independence.