## UNIVERSITY OF CALIFORNIA, IRVINE CONSENT TO ACT AS A HUMAN RESEARCH SUBJECT

# Critical Tests of Neurocognitive Relationships Collaborative Research: Interaction of Sensory and Response Processes in Decision Making

You are being asked to participate in a research study. Participation in this study is completely voluntary. Please read the information below and ask questions about anything that you do not understand before deciding if you want to participate. A researcher listed below will be available to answer your questions.

### Lead Researcher:

Ramesh Srinivasan, Professor Department of Cognitive Sciences (949) 824-8659; r.srinivasan@uci.edu

### **Study Locations:**

**UCI Campus** 

Human Neuroscience Laboratory, SBSG 1507

### **PURPOSE OF STUDY**

The purpose of this research study is to investigate how attention influences decision making.

### **SUBJECTS**

### **Inclusion Requirements**

You are eligible to participate in this study if you are 18 years or older, and have normal or corrected-to-normal vision.

### **Exclusion Requirements**

You are not eligible to participate in this study if you have any personal or family history of epilepsy or other neurological disorders.

### Number of Participants and Time Commitment

This study will include approximately 60 subjects and will involve three experimental sessions that takes place in the Human Neuroscience Lab, SBSG 1507 and each takes 2 hours.

### **PROCEDURES**

The research procedures involve having an electrode net stretched over your head. The electrodes will make contact with your scalp through a sponge that has been soaked in a saline (mild salt water) solution. The saline solution includes of a small amount of Johnson's baby shampoo in order to minimize the natural oils from your hair getting into the sponge. No abrasion of the skin, gels, or paste are required.

After the net has been positioned on your head, you will be seated in front of a computer monitor. Your eye gaze will be checked with a camera positioned below the monitor which captures an image of the eye.

Once this is done, you will be asked to sit quietly for 5 minutes with eyes open or eyes closed while the EEG is recorded. During this recording, the experimenter may adjust the position of some of the electrodes to ensure a good recording.

Once this is done, you will be asked to stare at the computer monitor fixating on the center of the screen and respond to the stimuli by pressing one of two keys on the computer keyboard to discriminate targets as belonging to one of two categories. This is a difficult judgment, so it is important that you pay close attention to the stimuli and maintain fixation during the task. Some subjects may not be able to perform the task while fixating on the center of the screen. This does not indicate any deficits in your perception or attention as making eye movements is a natural part of visual perception, but reliably maintaining fixation is essential for the recordings from the brain.

You will do this for 4 minutes at a time after which you will have about a 2 minute break to stretch and rest your eyes. After 4 such blocks, you will have a longer break of around 6 minutes to stretch and rest your eyes. You will repeat this set of 4 blocks, 3 times. The session will take 2 hours.

You will participate in three such sessions. After today's experiment we will schedule the 2<sup>nd</sup> session starting at least 1 day from now but no more than 7 days from now. The 3rd session will be scheduled at least 1 day and no more than 7 days after the 2nd session. The procedure at the 2<sup>nd</sup> and 3<sup>rd</sup> experimental session will be identical to the procedure described above.

### **RISKS AND DISCOMFORTS**

**EEG Procedure.** EEG is a very safe test. EEG devices passively record current in the scalp generated by electrical discharges in the brain. The saline solution used with the EEG electrodes can produce mild irritation (itchiness). You may experience discomfort with either wearing the electrode cap or with the requirement to sit still during the experiment. If you do, you will have the electrode cap removed immediately and discontinue the study.

**Visual stimuli and task:** You may experience some boredom or fatigue while performing the task for 4 mins at a time. You will be given breaks between these blocks

### **UNKNOWN RISKS**

There may be risks to being in this study that we don't know about now. You will be informed of any changes in the way the study will be done and any additional identified risks to which you may be exposed.

### **BENEFITS**

### Subject Benefits

You will not directly benefit from participation in this study.

### Benefits to Others or Society

The investigators are carrying out this experiment to understand the relationship between attention and decision making and may be helpful to the treatment of cognitive disorders in the future.

### COMPENSATION, COSTS AND REIMBURSEMENT

### Compensation for Participation

You will be compensated at the rate of \$15/hr for 2 hours for a total of \$30 for each experimental session.

You will be compensated a total of \$90 for three experimental sessions.

### Costs

There is no cost to you for participation in this study.

### WITHDRAWAL OR TERMINATION FROM THE STUDY AND CONSEQUENCES

You are free to withdraw from this study at any time. If you wish to terminate the study for any reason, you may do so, and you should notify the experimenter immediately. In this case, you will be compensated \$15/hr (rounded to the nearest hour) for the time you have participated in this study with a minimum of \$15.

The research team may also end your participation in this study if you do not follow instructions, miss scheduled visits, or if your safety and welfare are at risk.

### CONFIDENTIALITY

### Subject Identifiable Data

No subject identifiable data will be collected about you. Your data will be stored only under a subject number.

### Data Storage

All research data will be coded and stored electronically on secure computers and servers with password protection on the UCI campus. Only authorized individuals will have access to it.

### Data Access

The research team, authorized UCI personnel, the study sponsor, and regulatory entities such as the Office of Human Research Protections (OHRP), may have access to your study records to protect your safety and welfare. Any information derived from this research project that personally identifies you will not be voluntarily released or disclosed by these entities without your separate consent, except as specifically required by law. Research records provided to authorized, non-UCI entities will not contain identifiable information about you. Publications and/or presentations that result from this study will not include identifiable information about you.

### Data Retention

- The researchers intend to keep the research data for approximately five years after the conclusion of the research project and the publication of the results.
- The researchers intend to keep de-identified data (i.e., data stripped of all subject identifiers) on DVDs indefinitely for future research purposes.

### Incidental Findings

We may observe unusual features in the EEG recordings. We will notify you of any such observation, for you to consult your physician.

### IF YOU HAVE QUESTIONS

If you have any comments, concerns, or questions regarding the conduct of this research please contact the research team listed at the top of this form.

Please contact UCI Institutional Review Board by phone, (949) 824-6662, by e-mail at <a href="IRB@research.uci.edu">IRB@research.uci.edu</a> or at 160 Aldrich Hall, Irvine, CA 92697-7600, if you are unable to reach the researchers listed at the top of the form and have general questions; have concerns or complaints about the research; have questions about your rights as a research subject; or have general comments or suggestions.

### **Three Session Consent Form**

**What is an IRB?** An Institutional Review Board (IRB) is a committee made up of scientists and non-scientists. The IRB's role is to protect the rights and welfare of human subjects involved in research. The IRB also assures that the research complies with applicable regulations, laws, and institutional policies.

### **VOLUNTARY PARTICIPATION STATEMENT**

You should not sign this form unless you have read it and been given a copy of it to keep. **Participation in this study is voluntary.** You may refuse to answer any question or discontinue your involvement at any time without penalty or loss of benefits to which you might otherwise be entitled. Your decision will not affect your future relationship with UCI or your quality of care at the UCI Medical Center. Your signature below indicates that you have read the information in this consent form and have had a chance to ask any questions that you have about the study.

I agree to participate in the study.	
Subject Signature	Date
Printed Name of Subject	
Printed Name of Subject	
Researcher Signature	Date
Printed Name of Researcher	