

Protocol Number: 13-17-0895

Approved by the UCSB Human Subjects Committee for use thru: 11/14/2018

INSTRUCTIONS:

UC Santa Barbara Consent to Participate In Research Study

Title: Identifying the neural biomarkers of adaptive cognition under fatigue and stress Lead Investigator: Barry

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Department of Psychological & Brain Sciences

UCSB Santa Barbara, CA 93106

Phone: (805) 893-3430

Funding Source: Department of Defense (US Army)

PURPOSE: You are being asked to participate in a research study. Your participation is voluntary. If you are a student your decision whether or not to participate will not have any affect on your academic status. Please feel free to ask questions at any time if there is anything you do not understand. The goal of these experiments is to identify the effects of task demands on selective attention and decision making. During the experiment you will be asked to perform tasks that will involve making decisions about stimuli presented to you on a computer screen and/or over speakers. These tasks may require mental exertion due to sustaining your attention over periods of time. These cognitive tasks are designed to measure attention and/or memory function. You may also be asked to perform some tasks while being observed by the experimenter and two of their research assistants. The tasks will involve you preparing and delivering a short speech, and performing a mental arithmetic task. You are being asked to participate because you are a normal healthy adult. Your participation allows us to determine basic principles of brain organization. They will give us insight into human decision making and cognition. The data obtained through your participation will be included with that from other subjects as part of a scientific study to appear in the peer-reviewed literature. Ultimately, these results may be useful for understanding how cognition supports behavior in many real-world tasks and how patients recover from brain injury or disease.

PROCEDURES: If you decide to participate, we will present you with sounds and/or displays of letters, words, or pictures of objects. You will either view these on the computer screen or on a sheet of paper and be asked to make judgments about the displays. The study may involve you viewing a set of images with highly graphic content e.g. threatening animals and insects, serious bodily injuries, mutilation, death. You may also be asked to provide saliva samples as part of the study for the purposes of measuring cortisol and alpha amylase, two physiological markers of stress. The samples will be taken at the start and end of the experiment, and potentially at various other intervals throughout the experiment session. Each sample will involve you drooling into a test tube via a plastic drinking straw. All samples will be labelled with an arbitrary code and stored in a freezer in a secure room, before being sent for testing at a laboratory. Samples will be disposed of safely and securely by the laboratory.

Data on your contact information will be collected as part of the screening process in order to contact you for participation in future session or studies. Data concerning your age, sex, handedness and how you performed on the particular task will also be collected as part of the study. You may also be asked to fill in questionnaires about yourself. Up to 50 subjects will be tested.

ALTERNATIVES: There are no alternative techniques that can provide this type of information on human structure and function. If you are a student subject, there are alternative experiments available to you.

RISKS: MENTAL STRESS/FATIGUE: you may experience fatigue from sustaining your attention during the experiment and stress or anxiety as a result of performing the speech/mental arithmetic tasks in front of the experimenters.

EMOTIONAL IMAGES: viewing graphic images may cause some psychological discomfort. If this discomfort becomes overwhelming you may choose to discontinue the study at any point without this impacting on your compensation. A full explanation for why it was necessary for us to show you these images will be given in a debriefing at the end of the study.

BENEFITS: There are no direct benefits to you in participating in this study. These data are collected purely for the purposes of research and do not have a clinical or diagnostic value.

CONFIDENTIALITY: All information you provide will be kept confidential except as required by law. Your name will not be used in any publication that may result from this study. Your name or other personal information will not be used to identify the data. The Office of the Committee for the Protection of Human Subjects at UCSB may request access to this form to ensure procedures designed to protect research participants are being properly followed. Representatives of the U.S. Army Medical Research and Materiel Command are eligible to review research records as a part of their responsibility to protect human subjects in research. Your data may also be shared with other researchers around the world or with a publicly available data archive. In such cases, all identifiers will be removed from the data that would indicate any connection to you (e.g. the removal of your name, address, SSN, etc.).

COSTS/PAYMENT: There are no costs to you for your participation in this study. If you are a student receiving academic credit for your participation, you will receive 1 credit/hour. If you are not a student receiving academic credits, you will be paid for your participation using the following guidelines:

At the rate of: \$10/hour

Travel reimbursement: \$20 (if you do not live locally)

EMERGENCY CARE AND TREATMENT FOR INJURY: If you are injured as a direct result of research procedures, you will receive reasonably necessary medical treatment at no cost. The University of California does not provide any other form of compensation for injury.

YOUR RIGHT TO WITHDRAW FROM THE STUDY: You may refuse to participate and still receive any benefits you would receive if you were not in the study. You may change your mind about being in the study and quit after the study has started. Your decision whether or not to participate in this study, or a decision to withdraw will not involve any penalty or loss of benefits to which you are entitled. If you are a student your decision whether or not to participate will not have any affect on your academic status. The investigator may withdraw subjects from the study at his/her discretion.

Expiration Date on the Viability of the Data Collected: Data gathered from this study will be maintained by the investigator indefinitely or as required by federal or state regulation.

PRINCIPAL INVESTIGATORS DISCLOSURE OF PERSONAL AND FINANCIAL INTERESTS IN THE RESEARCH AND STUDY SPONSOR: The study investigators have no financial interest in this research and will not benefit monetarily from this study. If specimens, such as blood or tissue, are taken from you for this study, they will become the property of the University of California. The specimens may be used in this research, may be used in other research, and may be shared with other organizations. The specimens could lead to discoveries or inventions that may be of value to the University of California or to other organizations. Under state law you do not have any right to money or other compensation stemming from products that may be developed from the specimens.

QUESTIONS: If you have any questions about this research project or if you think you may have been injured as a result of your participation, please contact:

Barry Giesbrecht at (805)-893-3430, giesbrecht@psych.ucsb.edu

Department of Psychological & Brain Sciences, Room 2831

UCSB, Santa Barbara, CA 93106

If you have any questions regarding your rights and participation as a research subject, please contact the Human Subjects Committee at (805) 893-3807 or hsc@research.ucsb.edu. Or write to the University of California, Human Subjects Committee, Office of Research, Santa Barbara, CA 93106-2050.

If your participation in this study raises any concerns about your own physical or psychological well-being then please contact your physician.

PARTICIPATION IN RESEARCH IS VOLUNTARY. YOUR SIGNATURE BELOW WILL INDICATE THAT YOU HAVE DECIDED TO PARTICIPATE AS A RESEARCH SUBJECT IN THE STUDY DESCRIBED ABOVE. YOU WILL BE GIVEN A SIGNED AND DATED COPY OF THIS FORM TO KEEP.

Signature of Participant or Legal Representative:_____Date:_____Time:_____