



UNIVERSITY OF CALIFORNIA, SAN DIEGO
CONSENT TO ACT AS A RESEARCH SUBJECT

ELECTROPHYSIOLOGICAL STUDIES OF LANGUAGE AND MEMORY

Name _____ Date _____

Marta Kutas, Ph.D. and her associates are conducting a research study to find out more about how the brain processes stimuli (pictures, words, objects, sounds). The electrical responses of the brain can be seen in the electroencephalogram or EEG (brain waves) recorded from electrodes contacting the scalp. The electrical responses of the skin can be seen in the electrodermal activity (EDA) recorded from electrodes contacting the skin (of the hand/arm). Eye-movements can be recorded electrically or with miniature video cameras mounted either on a headband and positioned a few inches in front of the face or on a desk or computer monitor.

You have been asked to take part as one of approximately 11,485 healthy volunteers. If you agree to be in this study, the following may take place in one or two sessions, each lasting 1 - 4 hours, as specified:

Session 1: _____ hour(s) Session 2: _____ hour(s) or _____ None

You will sit in a chair perhaps in a soundproof chamber and be asked to attend to the stimuli mentioned above. You may be asked to listen to sounds from speakers, headphones, or earphones. You may be asked to respond (manually, verbally) to stimuli. You may be asked to fill out a questionnaire about the stimuli (recognition, recall, multiple choice). You may take some simple tests and be asked to: (a) read aloud, spell, or define words, take test of grammar; (b) read a number of sentences and repeat the final words in order; (c) fill out questions on handedness, prior experience with EEG recordings, education and health history.

One or more of the following also may take place, as checked:

Your EEG (brain waves) will be recorded.

Electrodes will make contact with your scalp via an elastic cap and will be removed after the experiment; some electrodes will be attached via sticky electrode collars. Your skin will be slightly scraped as gel is inserted in each electrode and cleaned with water after the experiment.

Your eye movements will be recorded and your head stabilized.

Electrodes will be placed around your eyes to record your eye movement. Since it is important that you keep your head still your head will be stabilized with an adjustable, sterilized, palatal dental impression plate. You can adjust or remove the bite plate at any time.

Your eye movements will be recorded via eye scanner.

You will either: (A) Wear a padded headband with miniature video cameras mounted on it, adjusted to fit your head. Cameras attached to the headband will be positioned a few inches in front of your face and focused on the pupils of your eye. –OR– (B) Cameras will be mounted on a computer monitor or desk in front of you. To allow the cameras to track your eyes, you will be asked either to wear a small temporary sticker on your forehead or to place your head in a padded stabilizing headrest.

Participation may involve the following possible risks or discomforts:

1. The brain waves are measured with standard polygraph machines which are designed to make this procedure harmless. The potential risk of electric shock is minimized by proper electrical grounding of subjects, by isolation of electrical stimulation devices from ground, and by placing very sensitive fuses in these ground circuits. In rare cases, people sensitive to medical settings may experience

light-headedness, queasiness, or fainting. The potential risk of this happening is minimized by screening for a history of such episodes.

2. The stimuli will be of low intensity and will be painless. You will not be placed under any stress.
3. Possible discomforts are that a little electrode gel may remain in your hair until it is washed, the skin under the free electrodes and/or the eye camera headband may be reddened for a short time, or the mouth plate may cause some discomfort.
4. When completing the questionnaires, you may experience anxiety or frustration. If you are too uncomfortable, you can terminate the experiment at any time. You may decline to answer any questions.
5. All data and information you provide for this experiment will be kept confidential to the extent provided by law. You will be asked questions that should their answers become known outside the research setting could affect your ability to obtain insurance or a job. The risk of loss of confidentiality is minimized by keeping printed information in locked files. Data are stored on computers protected from unauthorized access by passwords and contain no information that could be used to identify individual persons. Access to research records is restricted to Dr. Kutas, her associates, and the UCSD Institutional Review Board.
6. Because this is an investigational study there may be some unknown risks that are currently unforeseeable. You will be informed of any significant new findings.

If you are injured as a direct result of participation in this research, the University of California will provide any medical care you need to treat those injuries. The University will not provide any other form of compensation to you if you are injured. You may call the Human Research Protections Program at (858) 246-4777 for more information about this or to inquire about your rights as a research subject or to report research-related problems.

There will be no direct benefit to you. The investigators hope to learn more about how the brain operates when we attend to, try to understand, learn or memorize new material.

- You will receive cash payment [\$9 per hour _____ \$15 per hour_____] for participating in this study.
- You have chosen to receive academic credit in lieu of cash payment for participating in this study.
- You will receive cash payment [\$9 per hour _____ \$15 per hour_____] for each hour beyond that for which you receive credit for participating in this study.

If you are a student, equally accessible alternatives exist for you to gain credits that are offered for participating in this study.

_____ has explained this study to you and answered your questions. If you have other questions or research-related problems, you may reach Marta Kutas, Ph.D. at (858) 534-2440.

Participation in research is entirely voluntary. There is no cost for participation. You may refuse to participate or withdraw at any time without jeopardy to the medical care you may receive at this institution or loss of benefits to which you are entitled. You may also be withdrawn from the study if the investigator feels it is in your best interest or for other study-related purposes. If you wish to withdraw from the study, please inform the study staff.

Research records will be kept confidential to the extent provided by law.

You have received a copy of this consent document and a copy of "The Experimental Subject's Bill of Rights." You agree to participate.

Subject's Signature

Date

Witness

