



Department of Psychology
University of Toronto
100 St. George Street
Toronto, Ontario, Canada, M5S 3G3

LETTER OF INFORMATION FOR EEG STUDIES

We are pleased to invite you to participate in the Electroencephalography (EEG) research study outlined below. Your participation is entirely voluntary and you may withdraw at any time without penalty.

Study Title: Seamless Cognition: Visual Processing at the Intersection of Different Cognitive Faculties (EEG Version)

Funding/Sponsor: Natural Sciences and Engineering Research Council (NSERC)

Investigator: Dr. Susanne Ferber, 416-978-1537, email: ferber@psych.utoronto.ca

Purpose of Research: The purpose of this study is to investigate how fundamental principles and processes in long-term memory and perception apply to visual short-term memory (VSTM).

The procedures and risks for the study are explained below:

- 1. A comfortable cap will be placed on your head, resembling a shower cap. Small amounts of gel will be put in your hair through sites on the cap and sensors will be attached to these sites. The gel is a saline solution and is completely harmless and can be easily washed out with soap and water. Sensors will also be attached to your face and head via an adhesive sticker which comes off easily at the end of the study.**
2. The experiment involves [making eye movements / pushing buttons / making a verbal response/ pointing] in response to a visual stimulus and filling out a questionnaire.
3. There are no known physical or psychological risks associated with your participation in this study. The study takes approximately 60 minutes to complete, but may last up to 120 minutes depending on preparation time.
4. In this study, you will be asked to view a variety of pictures that have been categorized as unpleasant. The content of the pictures will include 1) predatory animals (i.e. snakes, bears, dogs, sharks, and predatory cats) in threatening positions, and/or 2) pictures of storms (i.e., tornadoes or dark clouds). Viewing these images is not known to have any lasting psychological effects but may cause brief stress or anxiety. If any of the images presented should make you feel too uncomfortable to continue with the study, you are free to immediately withdraw your participation without any consequence to your remuneration.]
5. You will be fully debriefed as to the rationale and hypothesis underlying this experiment upon the completion of your participation.
6. There will be opportunities to rest during testing. Participation is entirely voluntary. In other words, you are free to leave/exit the experiment at any time, and this will have no bearing on any remuneration you may receive [\$10/hour behavioural study], nor will it have any other undesirable consequences.



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Consent of Participant

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You have been invited to participate in the experiment which just has been described to you. The experiment involves filling out a questionnaire and [moving your eyes / pushing buttons / making a verbal response / wearing a cap and getting a small amount of gel on your head/sensors attached to your head and face] while responding to visual stimuli. The study takes approximately 60 minutes to complete, but may last up to 120 minutes depending on preparation time.

There are no lasting risks associated with this study, but it is possible that viewing some of the images in this study may cause a temporary increase in stress or anxiety. Furthermore, there are no direct benefits to the participants other than learning about the design of research studies. The potential benefits to the scholarly/scientific community are substantive as the goals of this project address fundamental issues in visual cognition.

Data will be used exclusively for scientific purposes and will be recorded and maintained in confidence by, and available only to Dr. Ferber and researchers working under her supervision. Results of this study and related research information are available upon request.

Information for EEG Experiments During COVID-19 Pandemic

The research site is located at *The Centre For Biological Timing and Cognition*, 325 Huron Street, Toronto, Ontario, M5S 3G3, under the jurisdiction of Toronto Public Health. We are taking all safety precautions to reduce the risk of spread of COVID-19 and expect you to follow public health directives as well. If you feel that you are from a vulnerable group with respect to COVID-19 effects (e.g., seniors, immuno-compromised) or have vulnerable members in your household, please **do NOT** participate in this experiment. You are under no obligation to participate and nothing bad will happen if you change your mind about participating in the research.

Because you are coming onto campus, you must follow the safety protocols as per Occupational Health and Safety. Below are the COVID-19 specific protocols that you must follow as a participant, and we must follow as researchers:

- Screening –a series of screening questions will be emailed to you before the date of testing as per requirements for persons coming onto campus. You will be asked the screening questions again the day of testing. If you answer yes to any of these questions you will not be allowed to participate in the experiment.
- Commuting To Testing Site – please take appropriate precautions (e.g. face covering / cloth mask) if taking public transportation and entering public indoor spaces.
- Hand Washing – you must wash your hands upon coming onto campus / entrance to the building. Hand sanitizer (70% ethanol) will be made available to you. Research personnel will frequently wash their hands with soap and warm water for at least 20 seconds.
- Personal protective equipment: you must wear a mask at all times inside the building. You will be asked to use gloves when touching response equipment and pens. All experimenters and lab personnel will also wear personal protective equipment throughout the experiment, including face-shields and gloves.



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- Physical distancing of 2 metres will be maintained at all times possible. However, for this EEG experiment there are a number of times when physical distancing will not be possible.
 1. To enter our lab, you will pass through a shared hallway where it is possible you will transiently pass another person at a distance of less than 2 metres.
 2. During set up of the EEG experiment, the experimenter will place a cap on your head, apply gel to the cap and attach sensors. The experimenter will also attach sensors to your face via an adhesive sticker. This set up will take approximately 30 minutes and during this time, the experimenter will be within 2 metres of you as well as making direct physical contact with your skin/head while wearing gloves.
 3. After the experiment, the experimenter will remove the cap and sensors. For a few minutes the experimenter will again be within 2 metres of you and making direct contact with your skin/head. Note for the entire experiment, the experimenter will be wearing PPE (gloves, mask, and face shield).
- Equipment Sanitation - all equipment used by the participant and researcher will be thoroughly sanitized before and after testing with alcohol wipes (70% ethanol solution) including EEG equipment, testing equipment, desks, chairs, pens, and high contact areas such as door knobs and light switches. There is a mandatory one-hour gap between participants to allow cleaning of the testing area. Researchers will clean the testing area and areas of high contact after and before testing is completed.

We will be collecting personal contact information (name, phone number, email address) that we must retain in order to follow up with you and/or conduct contact tracing if you may have been exposed to COVID-19 in coming to the research site. Contact information will be kept separate from data collected through the research study to allow for de-identification of the research data. You maintain your right to withdraw from the study at any time, including to have your research data destroyed. If you do withdraw, we will continue to maintain your contact information and will only give it to Occupational Health if required for contact tracing. **We cannot guarantee anonymity** as the personal contact information identifies you as a participant.

In addition, deciding if you should participate in this study is a personal decision. We are not medical professionals, so we cannot provide you with specific recommendations. Though we will do everything we can to minimize a risk of COVID-19, there is some risk of COVID-19 exposure in taking public transit to the testing location, entering our testing facility, and participating in this experiment. You may want to consider these factors when deciding if you would like to participate.

By signing this form, you confirm the following: I have read and understood the information presented above about the procedures and risks involved in this study and have received satisfactory answers to questions related to this study. I am aware that this study is entirely voluntary and I may withdraw from the study at any time without penalty. I understand that if I have any questions or concerns resulting from my participation in this study or about my rights as a participant, I may contact the experimenter or the laboratory director (Dr. Susanne Ferber, 416-978-1537, ferber@psych.utoronto.ca, Sidney Smith Hall, room # 4033) or the Ethics Review Office at ethics.review@utoronto.ca (416 946 3273). With full knowledge of all foregoing I agree, of my own free will, to participate in this study.



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Name of Participant

Signature of Participant

Dated