

# Experiment Information

## Self-movement cognition experiment

2310121636

<b>Experiment</b>	Self-movement cognition experiment
<b>Lead Researcher</b>	Kazuma Takada
<b>Experimenters</b>	Kazuma Takada
<b>Experimental equipment</b>	Display, Pen Tablet, Keyboard

Dear Participant,

Thank you for agreeing to participate in this study! Before you begin, it is important that you learn about the procedures involved. Please read the following carefully.

### 1. Our goals

The goal of this study is to investigate how a person's movement affects his or her self-cognition. To avoid behavioural bias, the specific research questions and hypotheses cannot be explained prior to the experiment. They will be explained after the experiment is completed.

### 2. Instructions and Procedures

You participate in an experiment in which you manipulate a cursor on a display. The cursor on the display moves through the pen tablet. Your hand movements on the pen tablet will be reflected in the cursor on the display. You will be asked to move the cursor on the display to perform the task of tracking the red target. In this tracking behaviour experiment, you will be asked to track (trace) the cursor as accurately as possible to track the target. After repeating this tracking task several times, the participants will be asked to perform a multiple cursor manipulation task. In this multiple cursor manipulation task, you are asked to move your hand for 5 seconds to find the cursor on the display that matches the movement of your hand; you are free to move your hand for 5 seconds, but you are instructed to make sure that your hand does not extend outside of the tablet and that it does not move along the plastic frame that surrounds the tablet. After 5 seconds, all cursors will stop moving and a number will be presented. After being presented with the number, you will be asked to select one cursor that you feel is consistent with your movement and enter its number on the keyboard. More detailed information about the procedure and flow of the experiment can be found in the *Experiment Information sheet*. The experiment will include a 5-minute bathroom break when the trial reaches the halfway point. A computer will be set up with a display showing the phases of the experiment, instructions, cursors, etc. During the self-motor recognition experiment, the participants will be covered with a cloth from the neck to the desk so that they cannot see their hands. Details of this experiment can be found in the information on the *Experiment Information sheet*.

The experiment will include a break, a trial of self-motion experimentation, and a post-experiment questionnaire. In the questionnaire, you will be asked to describe how you felt during the experiment and how you searched for the cursor that matched your movement. This questionnaire will be administered after all trials have been completed.

All of your responses will be anonymized and used only for data analysis. Once you begin the experiment, more detailed instructions will be provided in a separate instruction manual and practice trials will be conducted to familiarize you with the experiment.

### 3. Time involvement

The experiment will take approximately 40 minutes. You will receive 1500-yen worth of Amazon gift card for participation. If for some reason you are unable to complete the experiment, the amount of Amazon gift card will not be changed.

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#### 4. Risks and benefits

The equipment used in this experiment generally poses low risk to participants. However, there is a possibility of physical fatigue due to sitting in the same position for long periods of time and moving the arms. The risk of physical fatigue is minimized by stretching before and after the experiment and by taking breaks during the experiment. In the unlikely event of a sudden reaction to the experimental apparatus, the experiment will be terminated.

Other than the compensation you receive, there is no personal benefit to you from participating.

#### 5. Further explanations

General information about the experimental policies adopted by our unit and the equipment used in our research can be found on our website: <https://groups.oist.jp/ecs/participate>. If you would like more information about this research, please contact Kazuma Takada at [k.takada@oist.jp](mailto:k.takada@oist.jp). If you have any issues about the research, please contact Tom Froese, PI, at [tom.froese@oist.jp](mailto:tom.froese@oist.jp).