

High-resolution fMRI study of functional architectures as well as sensory and cognitive functions in the human brain (Behavioral experiment)

Explanation

1. Introduction

The objective of this experiment is to use high-resolution fMRI to reveal functional architectures and to explore neural mechanisms underlying various sensory and cognitive functions in the human brain. To understand the brain mechanisms related to cognitive control of objective action, we (the Laboratory for Cognitive Brain Mapping, in RIKEN's Brain Science Institute) perform psychophysics experiments.

This experiment has been approved by the Research Ethics Committee of RIKEN. The essence of the experiment is explained below. Please decide if you are willing to participate in the experiment after you read through and fully understand the description. Even if you decide not to participate in the experiment (or decide to quit in the middle of the experiment), your decision will not lead to any unfavorable consequences. Please read and confirm the explanation below carefully. If any part is difficult to understand or if you have any questions, please do not hesitate to ask the experimenter for further clarification.

2. Experiment details

We would like you to respond to the given tasks by pressing the appropriate keyboard key or clicking the mouse and so on. We'd like you to perform several runs. A run is less than 20 minutes and there will be breaks in between.

There are several forms we request that you fill out (asking age, gender, vision etc. beforehand and comments about task and your condition after the experiment). These answers will be used in analyzing the results and/or for improving the experimental methods. Total time for one experiment is 3 hours or less, including experiment explanation, filling out the informed consent form and questionnaires, and practicing the tasks, as well as the actual experimental runs. We may ask you to participate in two experiments in a day, and in this case we will ask, before each experiment, if you are willing to participate the experiment.

3. The safety of the experiment

This experiment is designed very carefully while taking into consideration the subject safety first. However, a subject might feel uncomfortable due to nervousness. The experiment will be conducted by expert experimenters who will be present the entire time. If you have any adverse reaction or otherwise feel uncomfortable during or after the experiment, please let us know immediately.

4. Agreement to participate in the experiment

This experiment will be conducted based on your agreement to participate in the experiment. If you are not willing to participate in the experiment, you will not bear any unfavorable consequences. Furthermore, even after you agree to participate, the experiment can still be terminated before it is started or during the measurement. You will not bear any unfavorable consequences under these circumstances, and your personal information as well as any measurement data collected from you by then will be discarded.

Any time after the experiment, we will discard the experimental data obtained from you upon your request to the operator or the Wako Safety Center, RIKEN. However, we cannot do so after we publish the results.

5. Privacy protection

Your privacy related to this experiment is strictly protected. Your name and any information that may lead to personal identification will not be reported in professional conferences or published in papers. Your personal information and the experimental data collected from you will be stored in secured places

and managed safely (with linkable anonymization). Therefore, you do not need to worry that this information might be leaked to the third party.

6.Period of this research theme and collaborators

This research proposal expects to be finished at March 31, 2019. However, it may be extended longer depending on the progress of the research.

We have had collaborations with Tokyo University, Tohoku University, Saitama University, National Taiwan University and Kao Corp. for this research project. We may have additional collaborators in the future.

7. Disclosure of the result

We ask for your understanding that we cannot respond to your inquiries regarding the measurement results. However, if you wish, the measurement results can be shown to you immediately after measurements are finished, before they are analyzed. We cannot show the results after the data are processed and analyzed.

8. Regarding the results from this experiment

In the case that the results from this experiment lead to the rights of any intellectual property such as the right of a patent, these rights belong to RIKEN.

9. Practicing structure of this experiment

This experiment is primarily conducted by our research team, the Team for Cognitive Brain Mapping, however we may share the acquired data with collaborators outside of RIKEN, including foreign countries.

This research is carried out using RIKEN 's research budget, research grants or funding from the private company, Kao Corp. It has been confirmed that there are no Conflicts Of Interest (COI) with any outside companies by RIKEN's COI committee.

10. Complaints about the experiment

To complain, please contact the Wako Safety center of RIKEN (direct phone: 048-467-9293).

Experimenter: _____

Responsible Investigator: Keiji Tanaka (Laboratory Head)
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Informed Consent

Keiji Tanaka, Laboratory Head
Laboratory for Cognitive Brain Mapping
RIKEN Brain Science Institute

1. Before I participate in the experiment titled “High-resolution fMRI study of functional architectures as well as sensory and cognitive functions in the human brain (Behavioral experiment)” (hereafter referred to as the experiment) as a subject, I have received an explanation from the experimenter regarding the objective and nature of research of the experiment, which I fully understand and agree with. I therefore decide, of my own free will, to participate in the experiment.
2. I understand that before the start of the experiment or in the middle of the experiment, I, of my own free will, can cancel or decline to participate in the experiment for whatever reason at any time.
3. I have agreed to participate in the experiment based on the following explanation that I received from the experimenter:
 - 1) In case any accident or problem takes place during the experiment, the experimenter will take emergent measures to ensure the safety of the subject.
 - 2) Participation in the experiment or quitting in the middle of the experiment will not result in any unfavorable consequences to the subject.
 - 3) If the subject has complaints regarding the experiment, the subject can directly consult the Research Ethics Section, Safety Division of RIKEN (direct phone: 048-467-9293).
4. I understand that in case experimental results lead to the rights of any intellectual property, such as the right of a patent, these rights belong to RIKEN.

Experiment date (D____M____Y____)

Explanation date (D____M____Y____)

Male Female Age _____

Person who explains _____

Signature _____

Subject ID number:

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