



Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

SCHOOL OF PSYCHOLOGY and INSTITUTE OF NEUROSCIENCE
TRINITY COLLEGE DUBLIN

Participant Information Sheet

Title of the research study:

The formation of multisensory object categories

Thank you for considering taking part in this research study. Before deciding if you would like to enrol, it is important that you understand why the research is being done and what it will involve. Please read the following information carefully and discuss it with others if you wish. If anything is unclear, please contact the researcher for clarification (Fiona Newell: fnewell@tcd.ie).

Purpose of the study

The purpose of this study is to understand how objects are recognised using visual and auditory information (i.e. the shape and sound of the object). We also aim to investigate if objects that are perceived by multiple senses are stored and represented in memory as multisensory objects. In order to organize information that we perceive every day, our brain groups objects into categories (i.e., animals, instruments, buildings, etc). This study aims to understand how multisensory information (e.g., visual, and tactile) influences how we perceive and categorize objects.

Your participation

You have been approached about this research because you have been identified as a healthy adult over the age of 18. The study involves the presentation of visual stimuli and auditory stimuli, often with detail, so if you have diagnosed sight or hearing impairments that would affect the ability to see or hear the stimuli then we do not recommend participation in this study.

Your participation, in this project is voluntary. If you do decide to take part, after reading this information, please tick the appropriate consent box when prompted.

Even if you tick the consent box and start the task, you are free to withdraw your consent and discontinue your in this study at any stage before or during the experiment without any questions being asked by us. To discontinue the study during the task, press the “Esc” key on your computer or close the browser window on your device at any time. Immediately following the task, your data will be stored as anonymous so that they cannot be linked to you in any way.

What will happen if you consent to the study?

For this study, you will be asked to come into the Multisensory Perception and Cognition testing Lab at the Lloyd Institute (Trinity College Institute of Neuroscience) for one session. The experiment should last no longer than 60 minutes. Undergraduate 1st and 2nd years psychology students will be reimbursed with research credits for their time (1 credit per half hour) through the SONA system. Participation is entirely voluntary for all others.

You will first be asked to carefully read the information sheet. You have the right to have your questions about the procedures answered (unless answering these questions would interfere with the study’s outcome). If you have any questions after reading this information sheet, you should ask the researcher before consenting to partake in the study. All procedures will be explained again before beginning each experiment.

If you decide to take part in the experiment, you will be asked to sign the consent form.

Experiment

Once you have given your consent to participate in the study, we will first ask you to provide some basic demographic details. After this the task will start.

Task example: You will first be asked to learn categories corresponding to sets of familiar 3D objects from either their image presented on a screen, their sound or both presented together. For example, you might be shown an image of a ball on its own, hear it with without seeing it or with an image of a ball that you will perceive by seeing and hearing the corresponding sound at the same time.

Then you will be shown an image of a ball before being asked to perceive by its sound. You will then be asked to identify which one is the same as the one you previously saw. Following this you will see two images corresponding to two object categories (e.g., tennis ball or golf ball). You will then be asked to hear the sounds of a new object set and decide which category each item belongs to.

You should perform these tasks as quickly and as accurately as possible.

You have the right to have your questions about the procedures answered (unless answering these questions would interfere with the study’s outcome). If you have any

questions as a result of reading this information sheet, you should ask the researcher before the consenting to partake in the study. All procedures will be explained again before commencement of each experiment.

Benefits of participation

There are no known direct benefits to participating in this experiment. Instead, by participating you will be helping towards a better understanding of how our brains take in information from our senses to make meaningful interpretations of that information.

Risks of participation

There are no physical or social risks involved in taking part in this study. Any risks involved in participating in this study are no greater than the risks you encounter in everyday life.

What will happen with your personal details?

We do not ask you for, nor take a record of, your personal data. Upon completion of the task your data are assigned a unique ID (not your name or student number) that cannot be linked to you. All the information that we collect about you during the course of the research will be kept strictly confidential and stored on our secure computers or in folders locked in secure filing cabinets located in the multisensory lab/testing suite at TCIN. Only the research team and principal investigator will have access to these data.

During dissemination, the data presented in talks or papers will never feature information about individual participants, only anonymous ID numbers.

Note that confidentiality of collected information may only be breached if:

1. The research team has a strong belief or evidence exists that there is a serious risk of harm or danger to either the participant or another individual.
2. Disclosure is required as part of a legal process or Garda investigation. Where possible, a full explanation will be given to the participant regarding the necessary procedures and also the intended actions that may need to be taken.

Where will the research take place?

The study will take place in the UB-05 lab on floor -1 of the Lloyd building in Trinity College Dublin.

What if you have any concerns?

If you have any concerns or complaints arising from this research study, please contact a member of the researcher team (contact details below).

Researchers:

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