



Thank you for participating in our study *Memory Diffusion*. Please read the following text attentively and without rush. If you have any questions, please feel free to contact us via Prolific or e-mail (Fabian Kamp; <mailto:kamp@mpib-berlin.mpg.de>). You can give your consent to participate in our study by ticking the box "I consent". The study will fully run in your browser. Please indicate "I do not consent" if you do not wish to participate in our study.

Aim of the study

The purpose of this experiment is to understand how people memorize visual information.

1. Procedure and content of the study

In each trial of our task, you will see multiple images presented in your browser window. These images show different things (e.g., animals, vehicles etc.). We will ask you to memorize all of the presented images as well as you can. Afterwards there will be a delay, in which you will only see a cross at the center of your screen. The delay will be followed by a recognition phase. During the recognition phase you will again see two images on your display. We will ask you to indicate the image that matches the previously shown image better. The experiment will be divided into three main blocks with two breaks in between.

Before the experiment begins, you will be asked to answer two questions indicating your age and gender, afterwards you will receive detailed instructions and you will be given the opportunity to practice the task. You can go through the instructions at your own pace (even repeatedly) and take breaks if necessary.

Participation in the study is restricted to computer users (no mobile phones or tablets), and the screen size must be at least 13 inches. The experiment will work with Chrome, Firefox, and Safari. Please note that you must remain in full-screen mode throughout the experiment. We cannot guarantee compensation if you exit full-screen mode or if the task ends due to technical issues on your side. The experiment will take you about 50 minutes. There will be the opportunity to take a short break during the experiment. Please be patient whilst the experiment is initialized. It can take a few minutes, thank you.

After the experiment is complete, the experimenters will be available to answer your questions via their Prolific Academic Account. The data is anonymous and will be handled in compliance with ethics (more info in Section 2).

2. What will happen to the information and data collected?

This study is a project of the research Group Adaptive Memory and Decision Making (AMD) (TU Dresden) and the Max Planck Institute (MPI) for Human Development investigating the storage of visual information in memory. The data collected will be used for research purposes only. During data collection, your Prolific ID and consent to study participation will be stored password-protected on internal university servers of the TU Dresden. Also, your responses in the experiment and information about age and gender will be stored password-protected on internal university servers of the TU Dresden.

We will not ask for or have access to any information that can reveal your identity.

Your Prolific ID is used solely to remunerate you for your study participation. Therefore, any information that could identify you will not be available to us or requested. During data analysis, your Prolific ID will be stored separately from the study data. The study data will be stored under an individual code number preventing it from being linked to your Prolific ID. The code number is stored on a separate code list in a secure location, and can only be accessed by a limited number of individuals working on the project. Upon remuneration, we will delete the code list and it will no longer be possible to link study data to your Prolific ID. Thereafter, it won't be possible to link the collected study data to any data that may be collected in the future. The study data will be stored for 10 years from the date of publication.

The study data (not your Prolific ID) may be shared with cooperation partners for collaborative analysis. The study data may also be made publicly accessible, e.g. via research databases or scientific publications (typically via the Internet). The study data may also be used for new research questions going beyond the purposes of this particular study. Please note that once study data are publicly accessible, its further distribution by others cannot be ruled out, and that this is beyond the area of influence or responsibility of the MPI for Human Development. Therefore, as a matter of principle, study data are only transferred or made publicly accessible without personal contact data or Prolific ID.

For further questions regarding the data protection you may contact Thomas Feg at the Max Planck Institute for Human Development (+49 30 82406-313, <mailto:thomas.feg@mpib-berlin.mpg.de>) or the data protection officer of the Max Planck Society (+49 89 2108-1554, <mailto:datenschutz@mpg.de>)

3. Participation is voluntary

This study is voluntary. You may withdraw from the study at any time. In that case, we will compensate you proportionally to the time you spent in the experiment, if you have

completed at least one experimental block. This will not impact your Prolific score or your eligibility to participate in additional studies on Prolific.

You will be payed based on the local regulations at the scientific institution (13€/h following the guidelines of the Max Planck Institute for Human Development). The payment will be adapted proportionally according to the actual duration of the experiment. The experiment is expected to take approximately 50 minutes. The maximal duration of the experiment is 1 hour.

You may also withdraw your consent to data processing and usage at any time. To do this, please contact Fabian Kamp, <mailto:kamp@mpib-berlin.mpg.de>.

Please note that once the code list has been deleted (see Section 2), it is no longer possible to identify your study data.

4. Consent

This document has informed you about participation in the study *Memory Diffusion*. The experiment will take about 50 min. If you withdraw your submission, you will not get paid. If you give your consent to participate in our study and follow the link that redirects you to the experiment, you consent to the following:

- I have been informed about the study *Memory Diffusion*, its procedure, significance, scope, and risks, and I have read and understood the study information and had the opportunity to clarify all open questions..
- I voluntarily agree to participate in the study described in the study information.
- I consent to the collection, processing, evaluation, and publication of my data as described in the study information by the Max Planck Institute for Human Development and TU Dresden.
- I consent to my collected study data being transmitted to future scientific cooperation partners. This may also involve transfer to a country with a low level of data protection, with the consequences described in the study information.
- I consent that my study data is made publicly availabe, e.g. via research databases or in connection with scientific publications (e.g. www.osf.io, www.datadryad.org, or www.zenodo.org)
- I have been informed that I can withdraw from participation in this study at any time without any disadvantage to myself.
- I have been informed that I can withdraw my consent at any time with effect for the future.