

## Study Information

Dear participant,

Thank you for engaging in our online experiment “Generating human similarity of natural visual objects from ratings of representational dimensions”. The following information will give background on this study and provide instructions for your task.

Please read the following information carefully before you decide to engage in our study. Your participation is voluntary, and you may choose to withdraw from it anytime without negative consequences or having to state your reasons. You can do so by simply closing the browser tab in which the study runs. Additionally, please cancel your reservation on Prolific. In case you choose to withdraw from participation, we will discard any gathered data. The task session will close automatically after a timeout of around 80 minutes, in which case your reservation will be automatically canceled and no data will be recorded. The whole study will be in English.

This study was approved by the ethics committee of the medical faculty of Leipzig University, Germany. (ethic no. 211/21-ek)

### **Aims of the study**

We want to develop a method of predicting the psychological similarities of naturalistic object images. This study aims to investigate whether people can directly rate images on the dimensions underlying visual similarity and whether we can reliably reproduce the actual similarity ratings of objects with this method. Through that, we hope to improve and simplify the similarity data collection process and thereby facilitate research in cognitive psychology and vision neuroscience.

### **General procedure**

In this study, you will be asked to rate various images of natural objects on a specific dimension. The dimension is presented as an array of images next to the rating scale (cf. figure 1). Images on the top row score very high on the dimension; images on the bottom row score zero on this dimension; and all the images in between reflect gradations, moving from higher scores on the top to lower scores on the bottom.

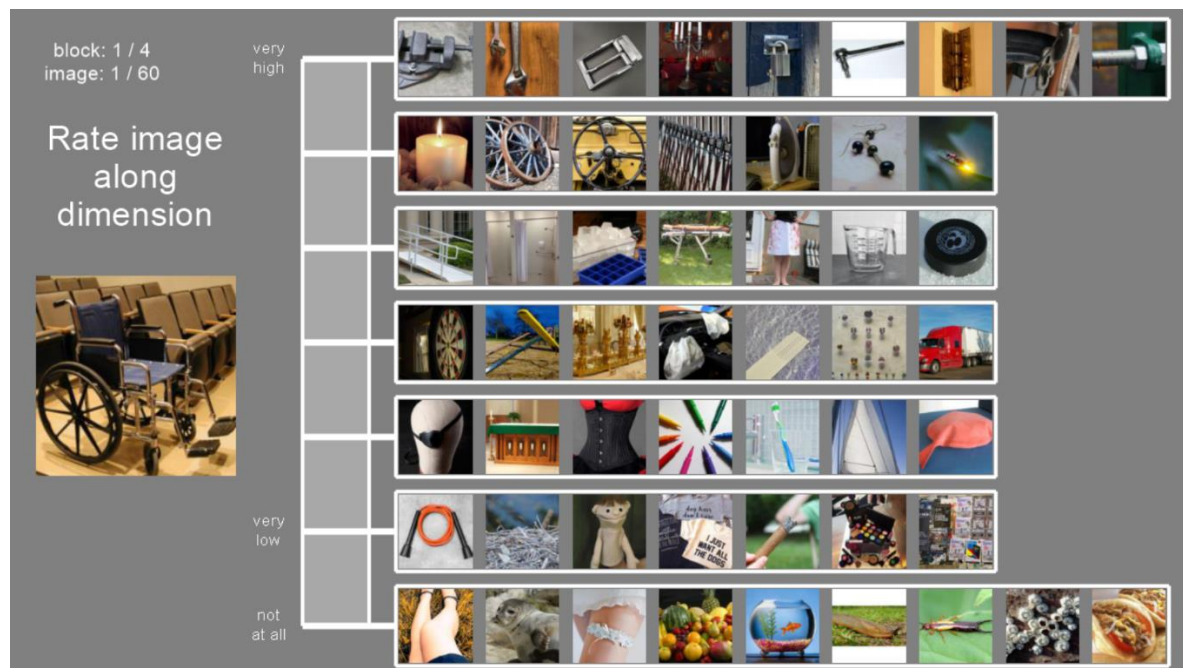


Figure 1. Example of a rating trial.

Your task is to indicate where on the dimension the object image depicted on the left belongs. You can provide your rating by clicking with your mouse on any point of the gray bar on the left that reflects the dimension. When you click on the top of the scale, this means that you say the image scores high on this dimension, similar to the images printed directly to the right of the point where you clicked. Similarly, when you click on the bottom of the scale, you indicate that the image scores low on the dimension.

In the first part of the study, you will see how far away your rating was from the correct answer (i.e., from the actual dimension score of the image). Later, you will only get this feedback occasionally.

There will be around 380 trials to rate in total. This should take around 25 to 30 minutes. There will be breaks after every 70 images; however, if you feel you cannot concentrate anymore, feel free to take a break in between. Just be careful to finish the task within 80 minutes; otherwise, your session will be aborted and you will not get reimbursed for this task.

After having rated all images, you will be asked about your interpretation of the rating scale. Lastly, you will be thanked for your participation. On ending the study, you will automatically be redirected to Prolific.

### Inclusion and exclusion criteria

You may participate in this study if you understand the provided study information, give your informed consent below, reside in the United States of America, have completed at least 20 previous studies on Prolific with a minimum average approval rate of 98, and are at least 18 years old. Beyond that, there are no explicit exclusion criteria.

**Insurance**

By nature of participants being recruited with pseudonyms and by the platform Prolific, they are not covered by the public liability insurance of the Max Planck Institute for Human Cognitive and Brain Sciences.

**Expenses**

The reimbursement for your participation is visible in the description of the study.

**Benefit of this study**

This study is being conducted to develop a method for predicting similarities of naturalistic object images. This means that you will receive no direct benefit from it beyond reimbursement. The findings obtained in the course of this study are expected to help researchers investigating object similarity in the fields of cognitive psychology and neuroscience.

**Any other questions?**

If you have any other questions about the various stages of the study, data protection, your rights, or wish to receive a PDF version of the consent forms, please contact:

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**Your agreement to take part in this study would be much appreciated. Many thanks!**