# Title of Dataset: Data from: Familiar size affects perception differently in virtual reality and the real world

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This dataset contains participant level data for each condition studied, as well as statistical output. Means and medians of perceptual estimates are provided. Files beginning with EXP1 are related to Experiment 1, and files beginning with EXP2 are related to experiment two.

## Description of the Data and file structure

EXP1

Acronyms in variable names:

S = size

D = distance

Bi = binocular

Mon = monocular

FSE = familiar size effect (i.e., the difference between size estimates for objects of the same physical size but different identity).

VR = virtual reality condition

REAL = real world condition (from Maltz et al., 2021)

\*Notes:

- jamovi was used to obtain p values without correction for multiple comparisons in post-hoc t tests

- JASP was used to perform Welch’s test

Statistical output is provided as either jamovi or JASP files as appropriate.

File details:

EXP1\_AllData\_VR\_real.csv

Contains mean size (columns B-I) and distance (columns K-R) estimates for each participant in VR (rows 2-23) and the real world (rows 24-55).

E.g., Cell B2 represents the 2nd participant’s average size estimate of the small/near Rubik’s cube viewed binocularly in virtual reality.

EXP1\_Distance\_ANOVA.omv

Contains data and output used in distance ANOVA. This includes all post hoc tests for interactions. Can be opened in jamovi.

EXP1\_Size\_ANOVA.omv

Contains data and statistical output for size ANOVA. Can be opened in jamovi. Does not include post hoc tests, see below.

EXP1\_Size\_FSE\_viewing\_modality.omv

Contains data and statistical outputs for t tests between viewing conditions for each modality. Can be opened in jamovi. Data (collapsed across object identity and size/distance)also available as csv (EXP1\_Size\_FSE\_viewing\_modality.csv).

EXP1\_Size\_FSE\_viewing\_modality.jasp

Data and statistical output for Welch’s test for 3-way interaction between familiar size, viewing condition (monocular, binocular), and modality (VR, real world). JASP used due to Welch’s test. Data (collapsed across object identity and size/distance) also available as csv (EXP1\_Size\_FSE\_viewing\_modality.csv).

EXP1\_Size\_modality\_viewing\_size:distance.omv

Data and statistical output for other interactions (size). Can be opened in jamovi. Data (collapsed across object identity) also available as csv (EXP1\_Size\_modality\_viewing\_size:distance.csv.

EXP2

Acronyms in variable names:

FamL = large familiar size

FamS = small familiar size

Fam Size = familiar size

Pres Size = presented size

File details:

EXP2\_Distance\_Mean\_2x2x2\_ANOVA.omv

EXP2\_Distance\_Median\_2x2x2\_ANOVA.omv

Data and statistical output for 3-way distance ANOVA using means and medians, respectively. Can be opened in jamovi. Data also available as CSV (EXP2\_Distance\_Mean\_2x2x2\_ANOVA.csv, EXP2\_Distance\_Median\_2x2x2\_ANOVA.csv).

EXP2\_Size\_Mean\_2x2x2\_ANOVA.omv

EXP2\_Size\_Median\_2x2x2\_ANOVA.omv

Data and statistical output for 3-way size ANOVA using means and medians, respectively. Can be opened in jamovi. Data also available as CSV (EXP2\_Size\_Mean\_2x2x2\_ANOVA.csv, EXP2\_Size\_Median\_2x2x2\_ANOVA.csv).

EXP2\_Size\_Median\_Correlations.omv

EXP2\_Distance\_Median\_Correlations.omv

Data and statistical output for correlation between familiar size and perceived size (and familiar distance and perceived distance), based on group medians for each. Can be opened in jamovi. Data also available as CSV(EXP2\_Size\_Median\_Correlations.csv

EXP2\_Distance\_Median\_Correlations.csv).

## Sharing/access Information

Links to other publicly accessible locations of the data:

Dropbox: https://bit.ly/3ufW7v8

Was data derived from another source? No.

If yes, list source(s):

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END OF README