

## *Long-Term Effects of Working Memory Retrieval From Prioritized and Deprioritized States.*

This codebook provides a concise overview of the key variables used in the analysis for the paper. While the raw data files contain a broader range of information, the focus here is on the primary variables relevant to the analysis. To streamline the process and enhance transparency, these are the main variables you will likely want to examine during the analysis:

**startOri1:** Refers to the initial orientation of the first image or stimulus presented during the trial (please check for *fixedOri* below to see how this is used for accuracy calculation).

**startOri2:** Refers to the second orientation of the first image or stimulus presented during the trial.

**this\_ori\_t1 or t2:** This variable refers to the actual orientation that the participant responds (WM Report) during the task. It is compared against the *fixedOri* to calculate accuracy as angular difference.

**participant:** Represents the unique identifier for each participant in the experiment. This variable is used to track individual responses and analyze performance on a per-participant basis across trials. Please note, we are assigning this variable during preprocessing of the data to make sure it is unique and avoid participant duplicates.

**Image1:** Refers to the first image presented during the trial. This variable holds the stimulus shown to the participant at the beginning of the trial.

**Image2:** Refers to the second image presented during the trial.

**cue:** Used in RIDER2 to determine the retro-cue.

**itm\_image:** Refers to the specific image stimulus shown to the participant during the Long-Term Memory (LTM) phase of the experiment.

**Test1:** Represents the first image used during the test phase of the experiment (WM probe).

**Test2:** Represents the second image used during the test phase.

**baselinePresent:** Indicates whether it is the baseline condition (= one sample trial) that is tested in this trial.

**log\_response\_t1.rt** and **log\_response\_t2.rt** and **adjust\_keys\_LTM.rt:** Represents the response time (in seconds) for the first and second test in WM and the LTM test. It records the time taken by the participant to respond after the probe is presented. This

variable is crucial for analyzing participant reaction times; we mainly use it for exclusion of trials where participants did not pay attention.

**These variables are generated during the analysis (on the basis of the variables above to enable analysis):**

**fixedOri:** Refers to the fixed orientation of the stimulus (WM Sample Orientation). It represents the expected orientation in the task, against which the participant's response is compared.

**accuracy:** Refers to the degree of correctness in the participant's response. It is calculated by comparing the this\_ori with the fixedOri. Usually we use degrees here (but see below).

**accuracy\_rad:** This is the accuracy of the participant's response in radians, used in angular and circular error analysis.

**accuracy\_signed\_deg:** This represents the signed error in degrees. It indicates how far off the participant's response was from the correct orientation, with directionality (positive or negative error).

**trial\_type:** Specifies the broader type of trial, such as whether it's a one-sample trial, prioritized or deprioritized. The levels are baseline = one sample trial; Test 1 = prioritized; Test 2 = deprioritized.

**image\_presentation or sometimes image\_effect:** Refers when the image was presented during the trial (WM Sample 1 vs. WM Sample 2), we mostly use this for plotting and primacy effect observations.

For questions about the variables or missing information do not hesitate to contact: [born@mpib-berlin.mpg.de](mailto:born@mpib-berlin.mpg.de)