

CONFIDENTIAL - FOR PEER-REVIEW ONLY

Speed and Mental Representation - IAT (#54935)

Created: 12/23/2020 06:56 AM (PT)

Shared: 12/23/2020 11:32 PM (PT)

This pre-registration is not yet public. This anonymized copy (without author names) was created by the author(s) to use during peer-review.

A non-anonymized version (containing author names) will become publicly available only if an author makes it public. Until that happens the contents of this pre-registration are confidential.

1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?

People have an implicit association between the concepts of 1) "fast" and "abstract and 2) "slow" and "concrete".

3) Describe the key dependent variable(s) specifying how they will be measured.

Performance on the IAT - Participants will complete the IAT (Greenwald et al., 2003) with words that describe fast (v. slow) speed and words that describe abstract v. concrete mental representation. In the IAT, participants are asked to categorize words by clicking at the right ('I') or the left ('E') key through seven blocks (Greenwald et al., 2003). Blocks 1 and 2 are practice blocks of words related to speed (block 1) and mental representation (block 2), where participants are asked to categorize each word to either fast or slow (block 2 - abstract or concrete); Blocks 3 and 4 are combined blocks, using pairs of words from both speed and mental representation. Block 5 is another practice block, with the key pairings reversed from block 1. Blocks 6 and 7 are combined blocks with key assignments reversed from those of blocks 3 and 4.

We will measure the Standardized Reaction times (D-scores) in all four blocks in the IAT (blocks 3, 4, 6, 7), Greenwald et al. (2003). A positive D score will indicate association between fast & abstract and slow & concrete.

The words associated with each category are as follows:

Slow: deliberate, crawl, measured, low-speed, creep, and leisurely

Fast: quick, swift, speedy, high-speed, rapid, and dash

Concrete: detailed, defined, precise, local, specific, controlled, and low-level

Abstract: big-picture, universal, broad, global, general, automatic, and high-level

4) How many and which conditions will participants be assigned to?

Participants will be assigned to one of four conditions (Fast in right compatible, Fast in left compatible, Fast in right incompatible, Fast in left incompatible). The conditions counterbalance the starting position of each category.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

We will follow the IATgen procedure for the analysis and use the code outlined by Carpenter et al. (2019).

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

The following participants will be excluded from the data analysis:

1. Participants will be screened out of the study (and not complete measures) if they answer an arithmetic question incorrectly at the beginning of the study or if they do not pass a screening test (e.g. they are asked to continue to the next page without selecting any of the options presented).
2. Any participants who write in the last comment box of the study that they experienced technical difficulties or participants who e-mail during the study about experiencing technical difficulties.
3. Based on the protocol given by the IATGEN tool (Carpenter et al., in press), the default procedure in analysis will score any trials over 10,000 ms, and any participants for whom > 10% of trials faster than 300 ms as missing (Greenwald, Nosek, & Banaji, 2003).

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

300 participants

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

Participants will also answer demographic questions.