

Does Memory Differ Across a Novel Stimulus Set?

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Introduction

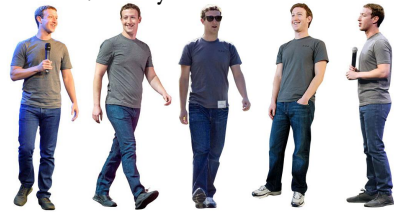
- Memory retrieval for images and naturalistic materials is vivid (Konckle, T. et al., 2010) (Tulving, E., 1972).
- Memory quality is highly variable across individuals (Patihis, L. et al., 2013) (Scoville WB & Milner B., 2000).
- Variability in stimuli features themselves may contribute to memorability differences (Lacy, J. et al., 2011).

Stimulus Variability

- If a stimulus has more variation across each presentation, it may be more memorable...



- If a stimulus has less variation across each presentation, it may be less memorable...



Mascot Variability



We predict some mascots will be more memorable than others.

Study Design

Encoding Phase



Item Recognition Phase



Memory Judgement



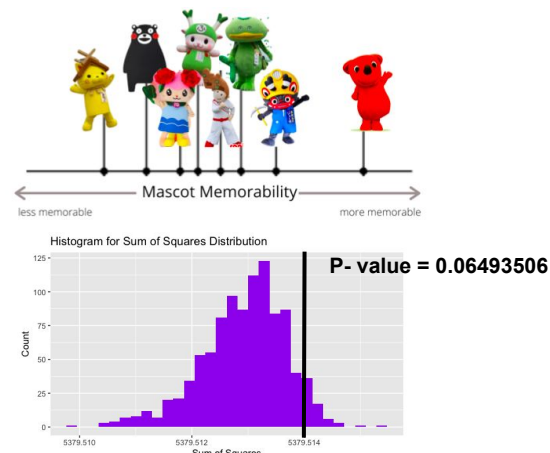
Sure Old | **Maybe Old** | Guess Old | Guess New | Maybe New | Sure New

- 24 videos per mascot (12 at encoding and 12 at retrieval)
- Data collected for 101 participants online through Prolific

Hypothesis

We hypothesize that intra- and inter-mascot variability within our stimulus set may lead to differences in memorability between the mascots.

Results



The variability we observed was numerically large. When we compared the observed variability against 1000 permuted samples, this effect appeared to be trending towards statistical significance.

Discussion

- Our analyses revealed a numeric memorability difference between mascots that trended in the expected direction.
- The current analysis cannot explain why memorability differences arose.
- We further hypothesize that the degree of variation between instances of a mascot determines whether or not they are more or less memorable.
- Follow up work could collect uniqueness ratings for mascots to help explain these memorability differences.

Acknowledgements

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References

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