

Exploring the effects of aesthetics on visual processing

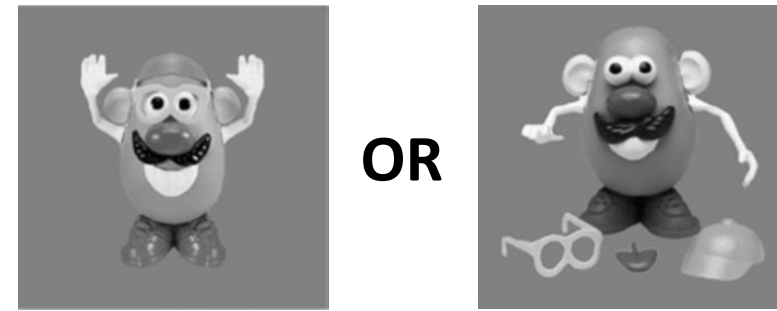
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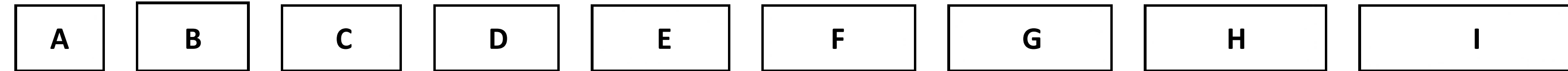
Introduction

The world is full of visual features, some of which have been found to be more aesthetically pleasing than others.

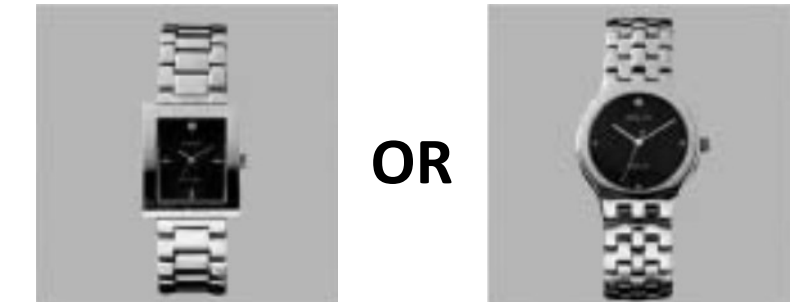
Which pictures do you prefer?



Shepherd & Bar (2011)



Russell (2000)



Bar & Neta (2006)

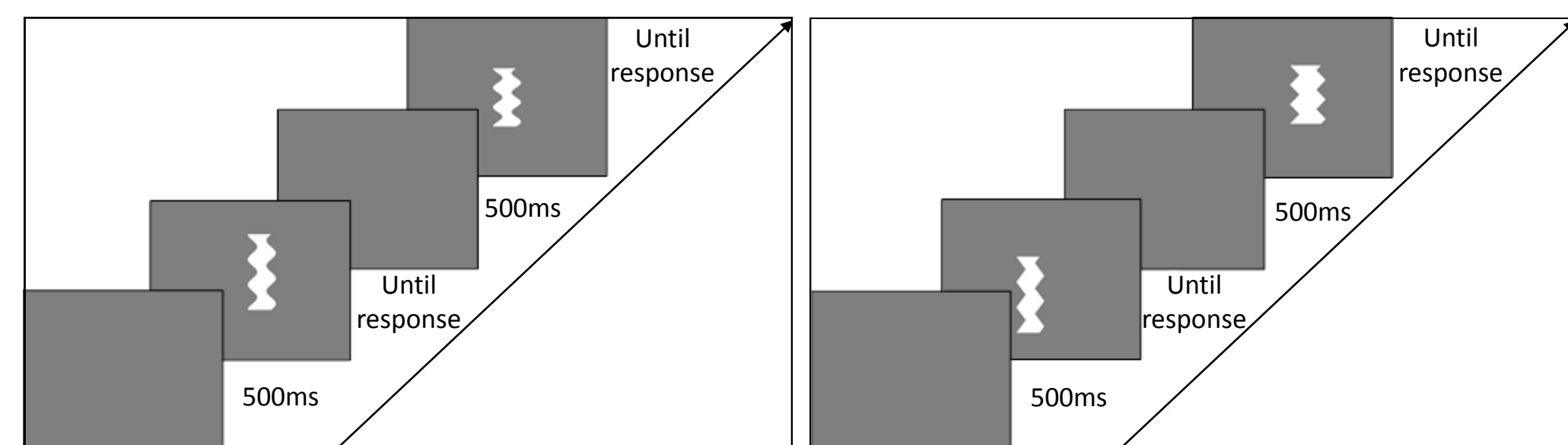
Experiment 1

Aims

- Investigate which features of stimuli are the most aesthetically pleasing.
- Investigate the relationship between aesthetic preference and processing speed.

Task

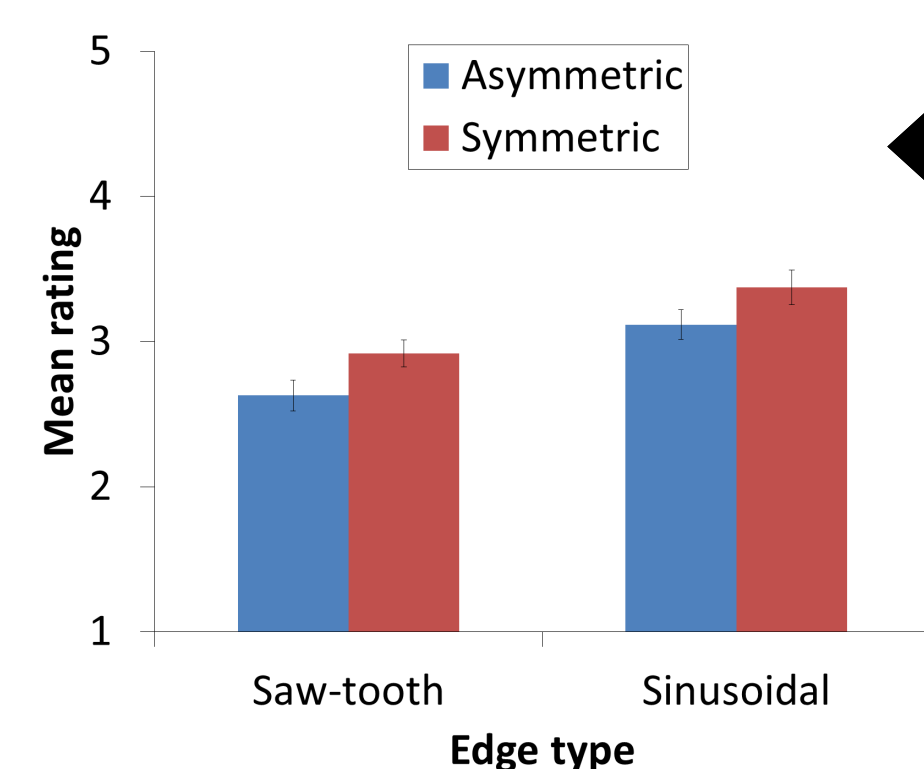
1. Garner paradigm (Garner, 1988).
 Discriminate whether a stimulus is tall or short.



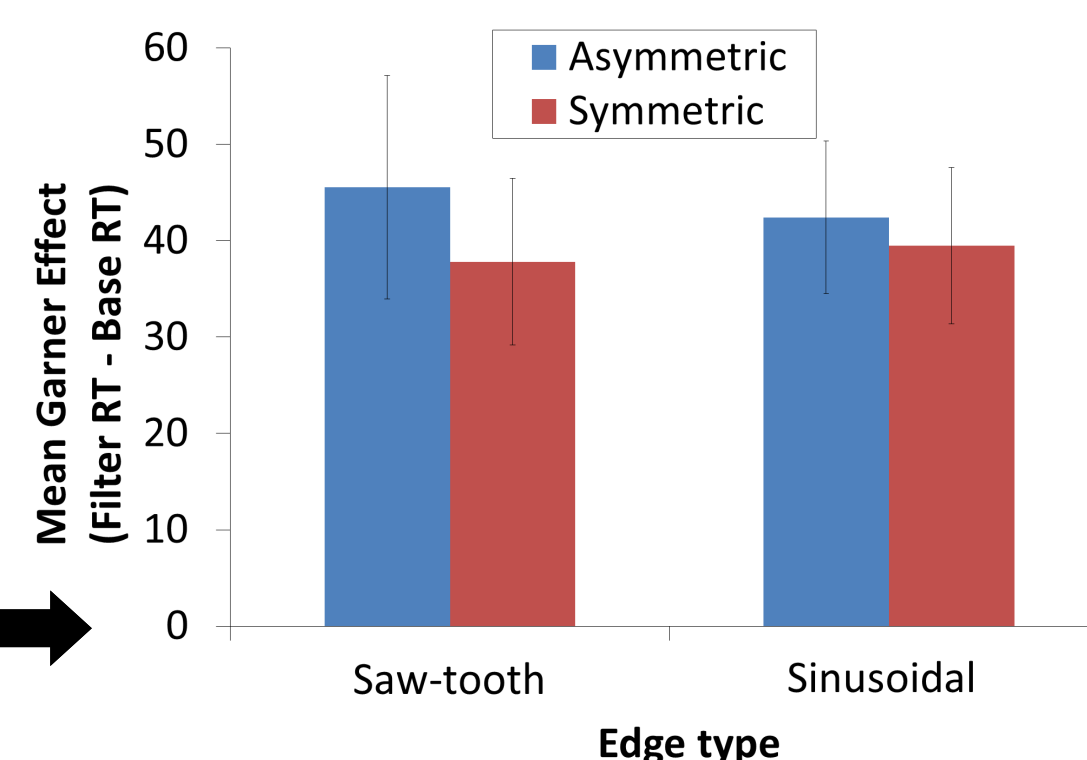
Baseline block: only height changes Filter block: height and width changes

2. Rate stimuli on how 'appealing' they are on a scale of 1 - 5.

Results



Significant preference for:
 - Symmetric shapes
 - Sinusoidal shapes



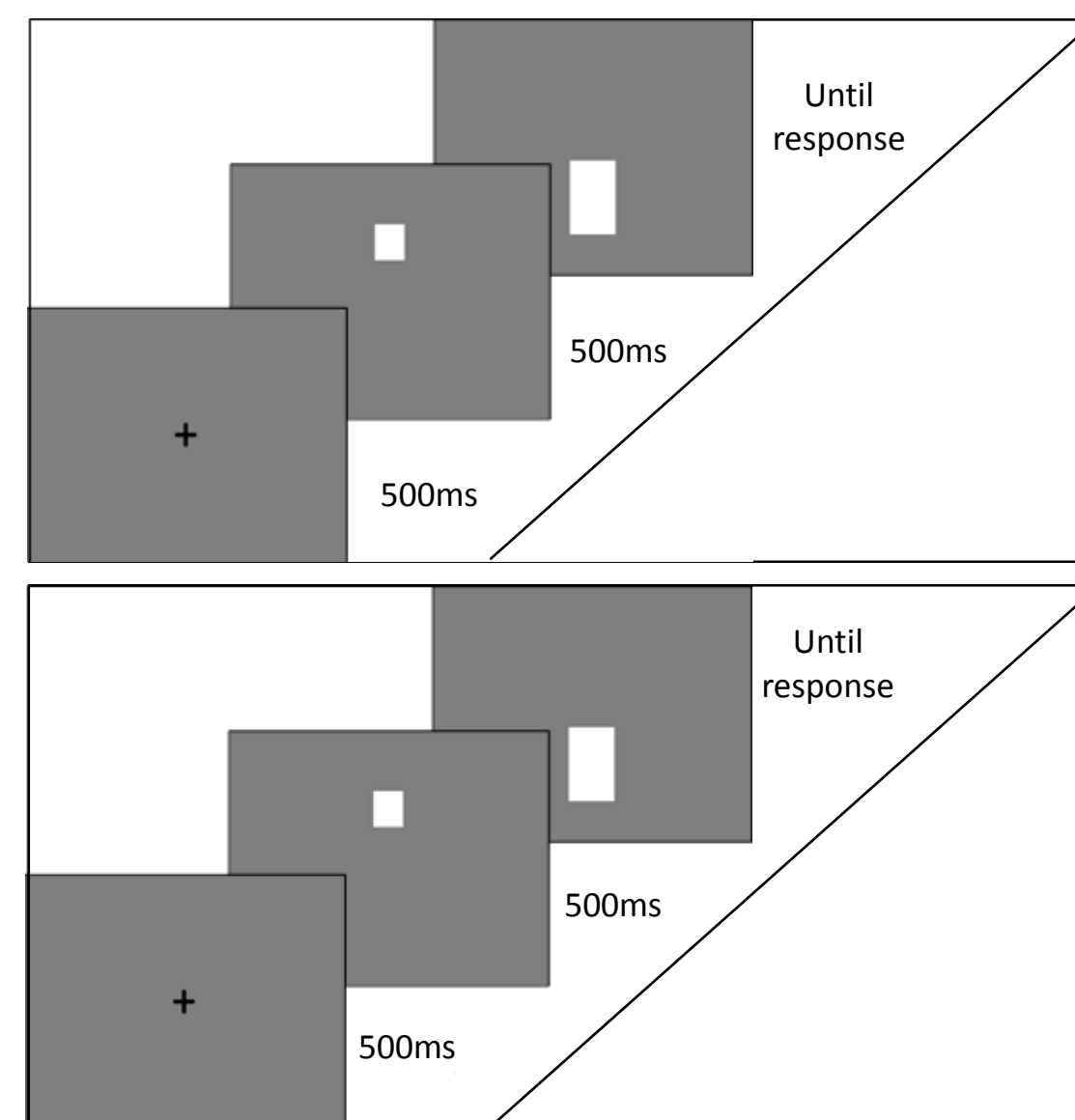
No significant Garner effect across symmetry and edge type.

Experiment 2

Aims

- Investigate height to width ratio preferences.
- Investigate sensitivity to changing height to width ratios.

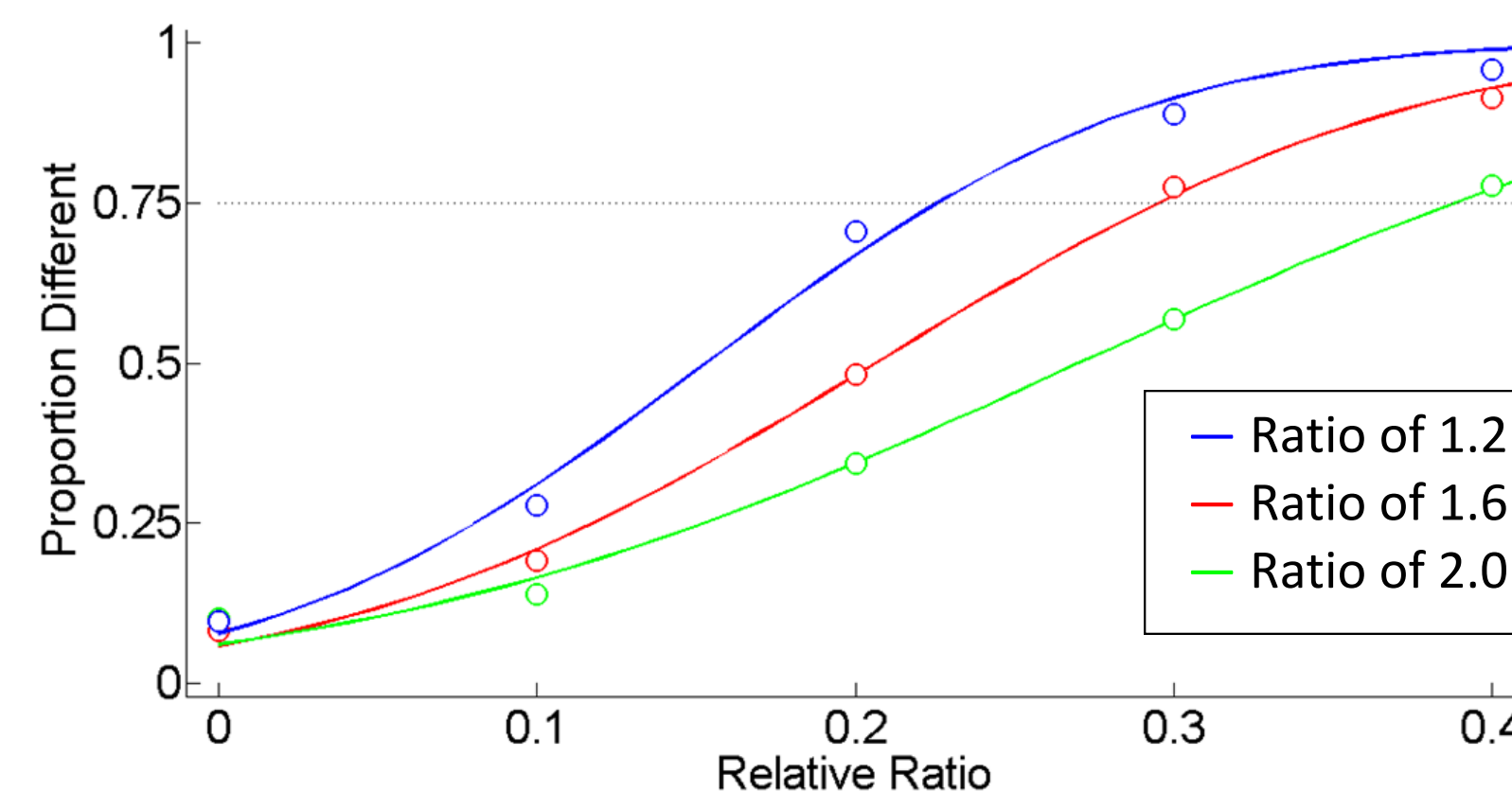
Task



1. Discriminate whether two stimuli are the same or different.

2. Select which shape is preferred from a choice of two.

Results



- Significant differences between thresholds for each ratio.
- No significant relationship between preference and threshold.

Conclusions

- **Symmetric shapes are preferred to asymmetric shapes.**
 Supports previous research.
- **Shapes with curved edges are preferred to those with angular edges.**
 Supports previous research.
- **Aesthetics do not influence visual processing.**
 Shapes rated as aesthetically pleasing were not processed faster or slower than those rated as less aesthetically pleasing.
- **No preference for shapes with the golden ratio.**
 Does not support previous research.
 Recent studies, e.g. Russell (2000), have found age differences in preferences for the golden ratio (younger generations do not show a preference for the golden ratio).
 May explain our data as our average subject age was 26.
- **Shapes with a smaller height to width ratio are more easily discriminated than those with the golden or large height to width ratio.**
 Prior research has shown that differences between objects are more easily detected if the objects are from different categories.
 May explain our data as shapes with a small height to width ratio resemble squares but when the ratio is changed there is a categorical shift towards them looking like rectangles.
- **The golden ratio is an additional visual feature which aids visual processing.**
 Differences in shapes with the golden ratio are more easily detected than those with a large height to width ratio.