

Supplemental Materials

Test of Whether Our Stimuli Yield Similar Results to Tyler (2001)

Methods

Two members of the lab took part in this experiment. The experimental design and procedure closely resembled those of Experiment 1. However, the stimuli were only composed of random dot patterns (Figure 1C) and patterns with a single embedded axis (Figure 1A). In this case, the stimuli with a single axis of symmetry varied in eccentricity, namely, 0, 1, 2, 3, or 4 columns away from the fixation point. Since the observer sat at approximately 1 m from the screen and each column was 1-cm wide, each column in the stimuli corresponded to approximately 0.57° of visual angle. Likewise, we manipulated the presentation time of the stimuli (0.03s, 0.1s, 0.3s, and 1s). The data analysis with these stimuli resembled that of Experiment 2.

Results

The results of the experiment indicate a significant effect of time on the detection of one embedded axis of symmetry. As expected, as presentation time increased, so did symmetry detection. Even as quickly as in 100 ms, both subjects could detect symmetry axes at detection rates greater than chance (50%). The statistics of symmetry-detection change were $\chi^2(3, 587) = 21.1, p < 0.01$ for Subject A and $\chi^2(3, 877) = 24.2, p < 0.01$ for Subject B. Figure S1A displays the time dependence of detection. Furthermore, the results suggested an effect of eccentricity on detection ($\chi^2(4, 220) = 20.7, p < 0.01$ for Subject A and $\chi^2(4, 350) = 49.8, p < 0.01$ for Subject B). As eccentricity increased, detection decreased (Figure S1B).

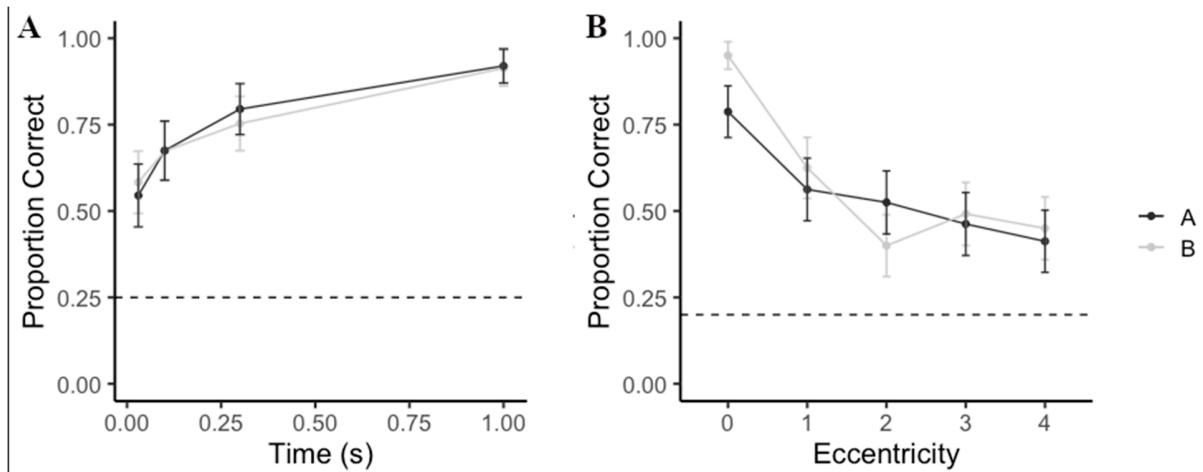


Figure S1. Temporal and Eccentricity Dependence of the Detection of a Single Axis of Symmetry. **A.** The proportion of correct detection rose as time increased. **B.** The proportion of correct detection fell as eccentricity increased. For both graphs, the error bars correspond to ± 2 SE. The dashed lines represent the expected proportion correct if time or eccentricity did not have an effect. Specifically, we would expect the proportion correct at each condition to be identical, so the dashed line corresponds to 100 over the number of conditions.