

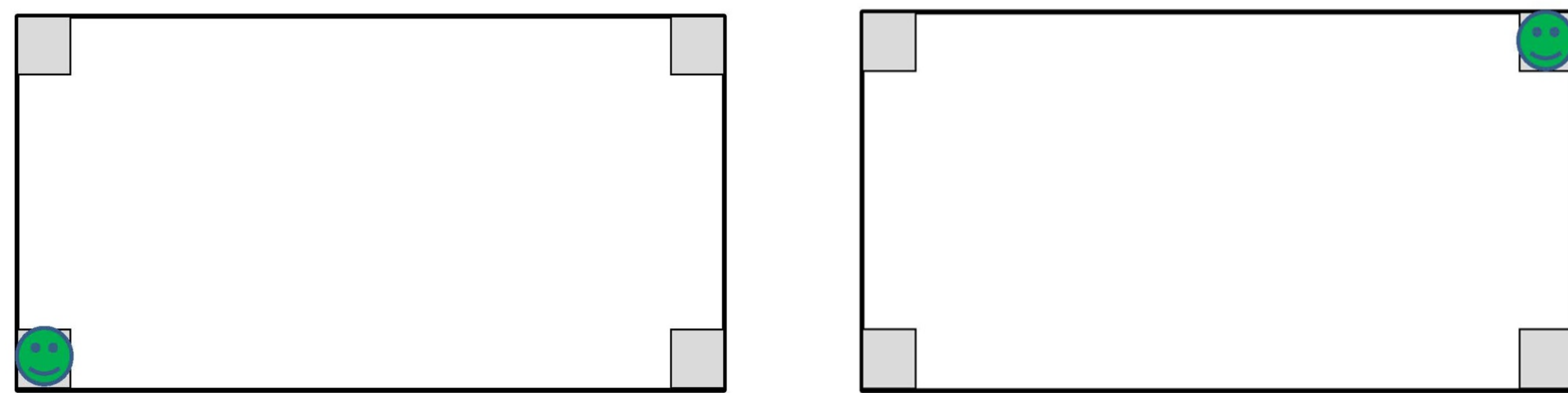
Search task learning not evident during learning trials influences behavior at test

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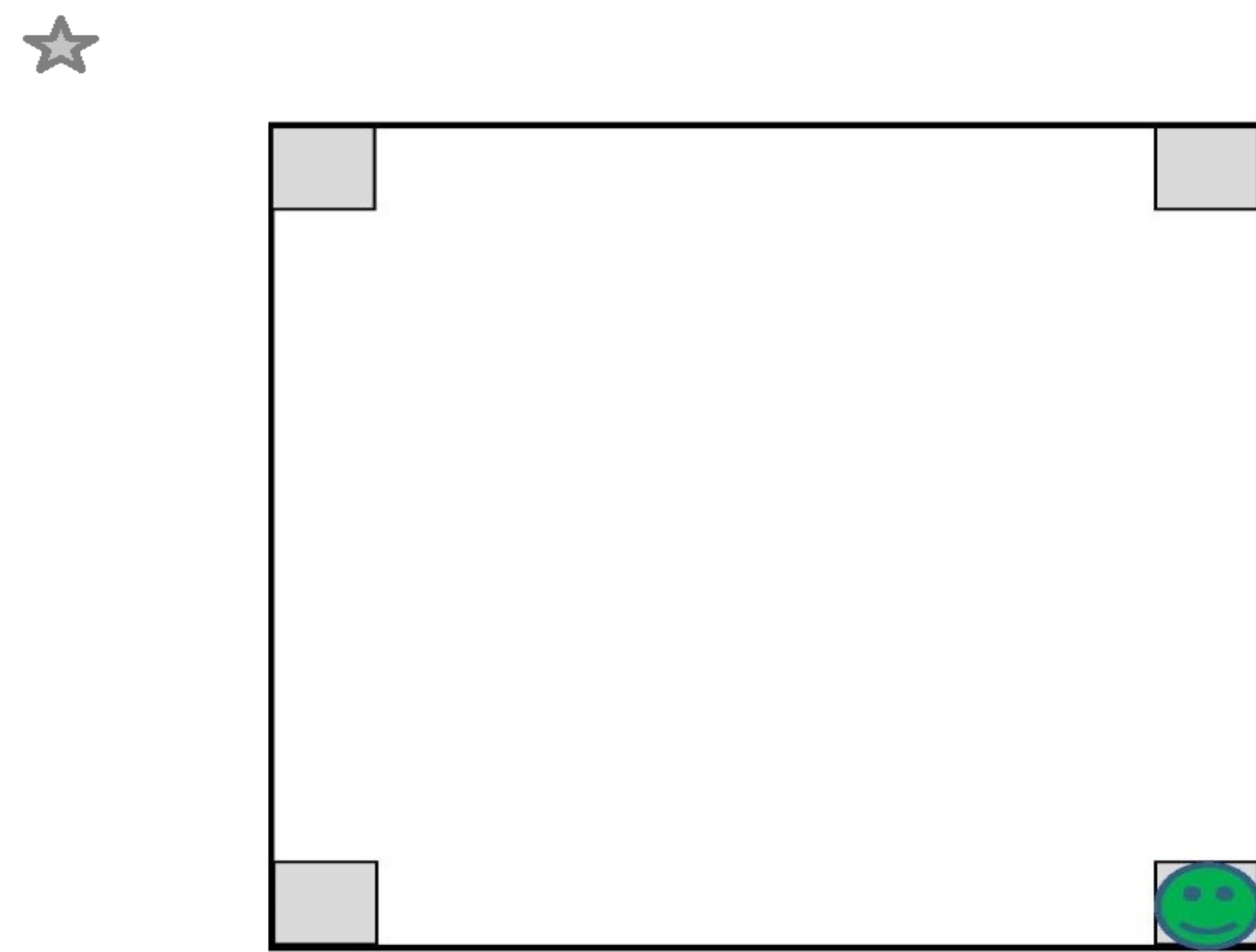
Introduction

- Research has demonstrated that children between the ages of 3 and 5 years old are able to learn the locations of a desirable object, even when the child is disoriented and the object is hidden (Huttenlocher, Lourenco, and Vasilyeva. 2005; Burgess et al, 2006).
- Other research has found that rats used both feature and geometric cues, but when put in conflict with each other, geometric cues overpower feature cues (Wall, Botly, Black, & Shettleworth 2004). The current study examined three to five-year-old children's ability to find Mr. Smiley using various visual cues.

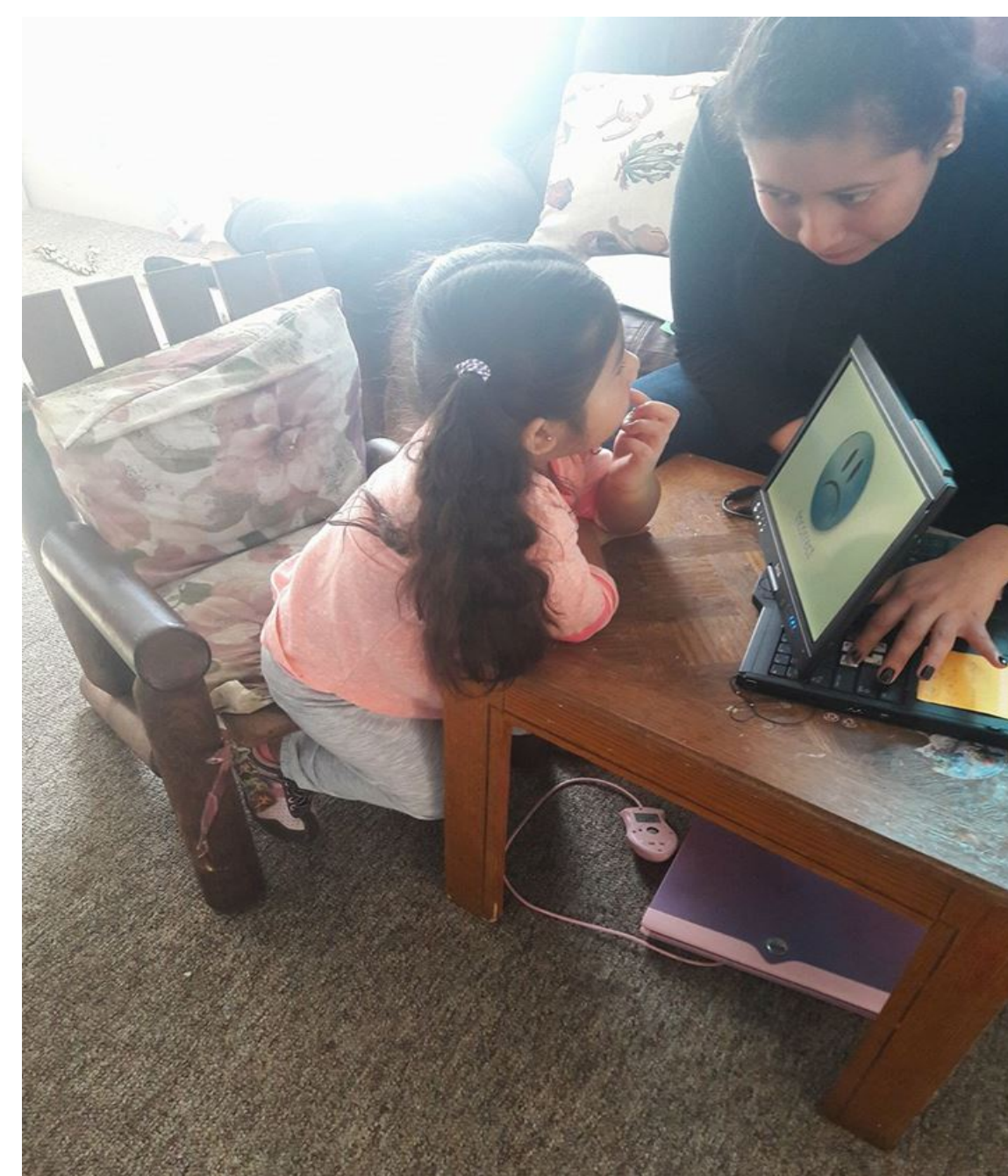
Rectangles
(Training stimuli)



Squares
(Training stimuli)



- In the current study children learned to use different cues to find Mr. Smiley.
- Previous studies in our lab have found that children can use a cue that is coincident with the landmark. The purpose of this condition of the larger study was to see if the children could learn to use a landmark when the relationship between the landmark and the target was complex.

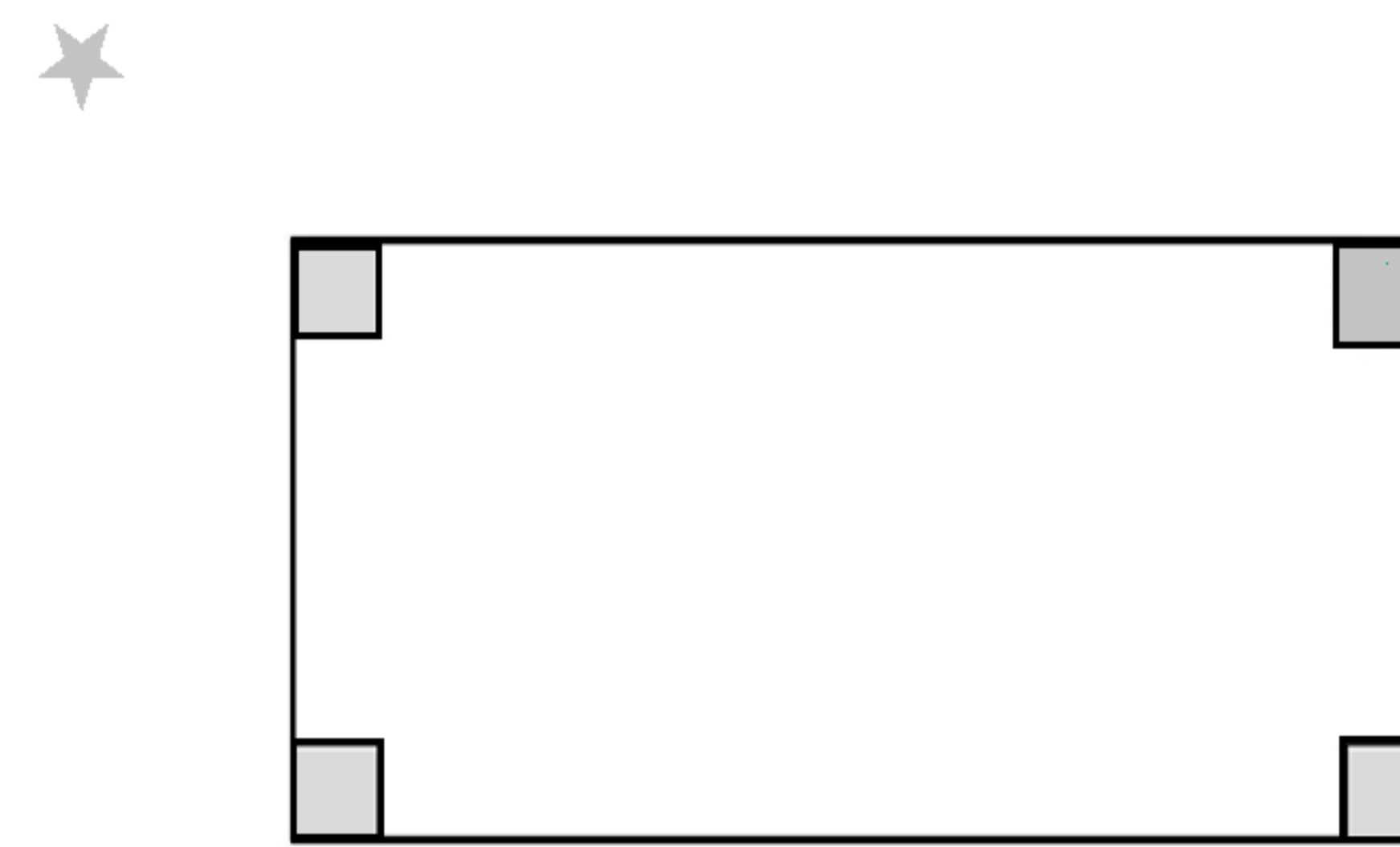


Methods

Participants

- Participants for this study were three to five year old children recruited from different daycares and their homes. Participants were given a sticker at the end of the study and returned to their classrooms. There were 39 participants in this condition.

Test Stimulus Example

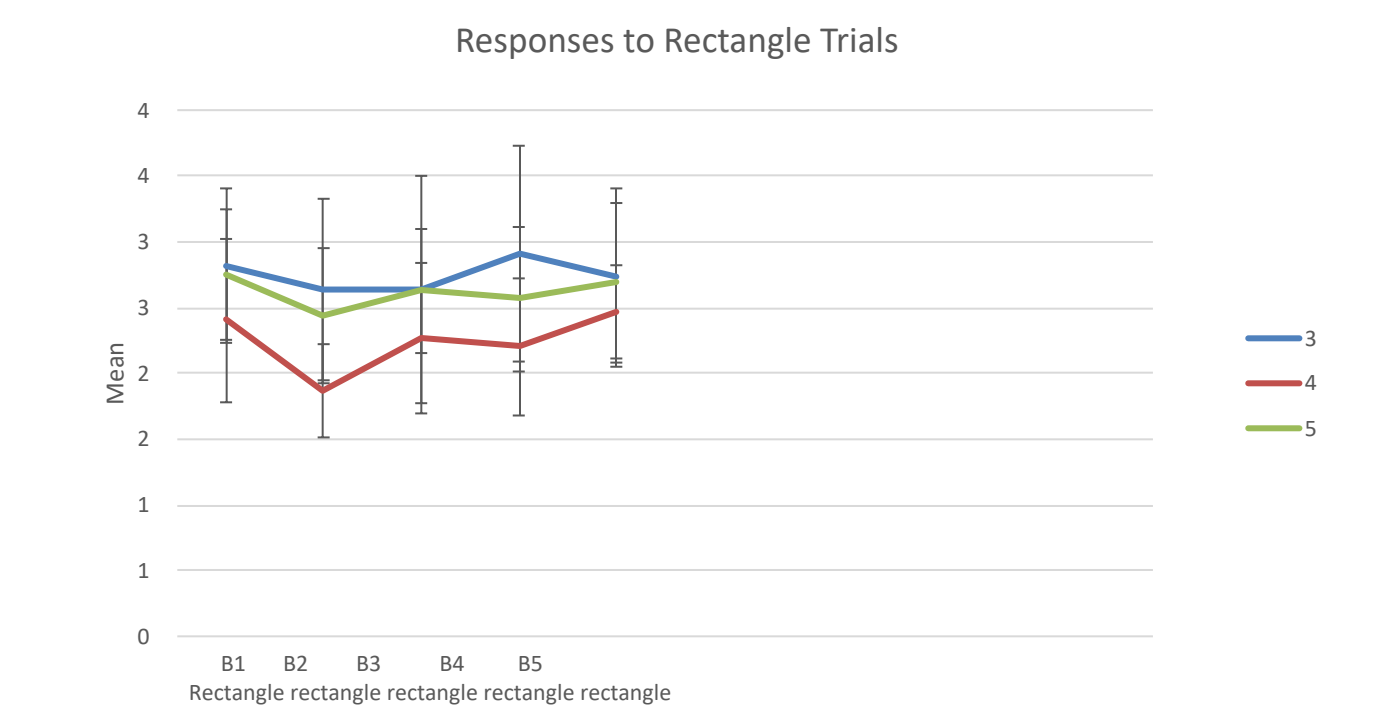
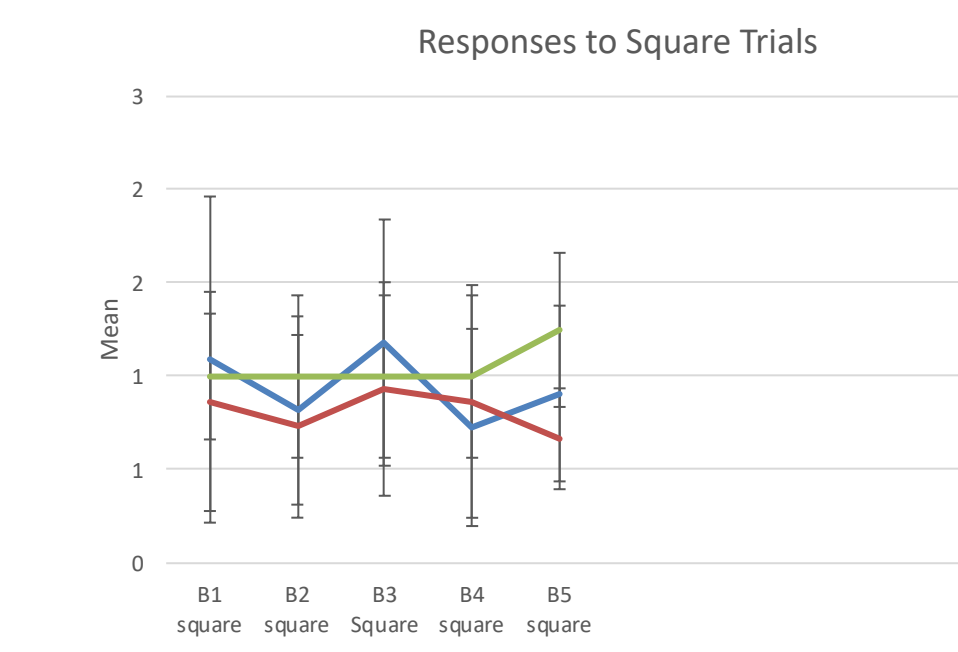
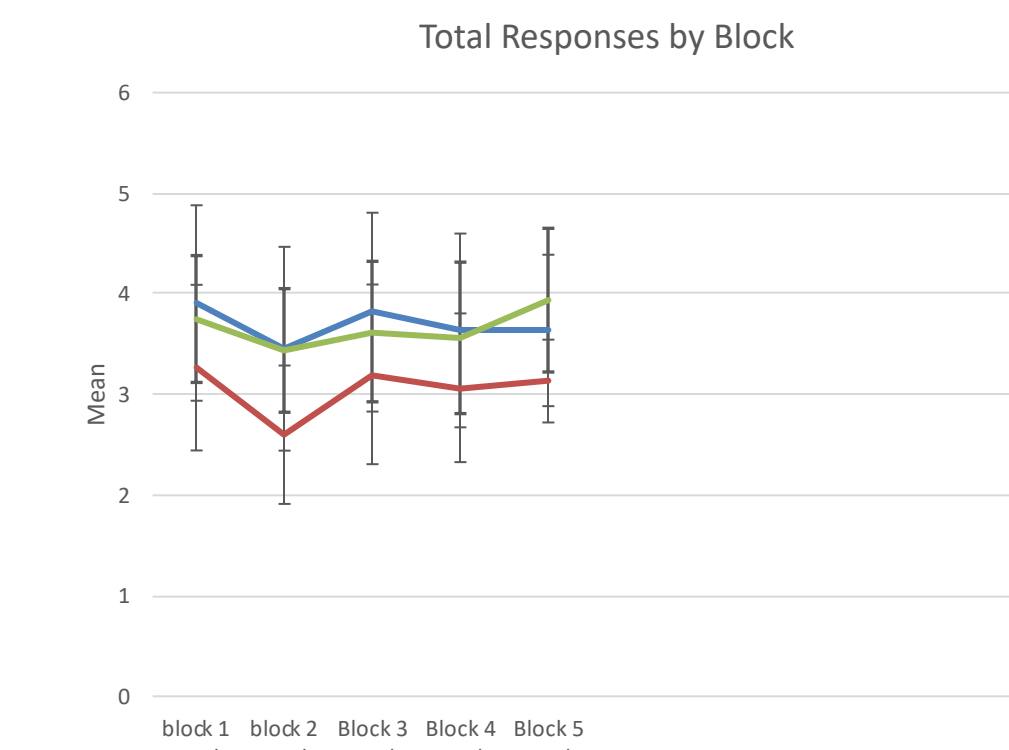


Procedure

- Preschool children were presented with a computer screen search task.
- Half of the learning trials had the geometry of the shape indicate where to look for the target.
- The other half of the learning trials had a star at the edge of the screen provided the cue.
- Participants were presented with test trials and asked to find the target

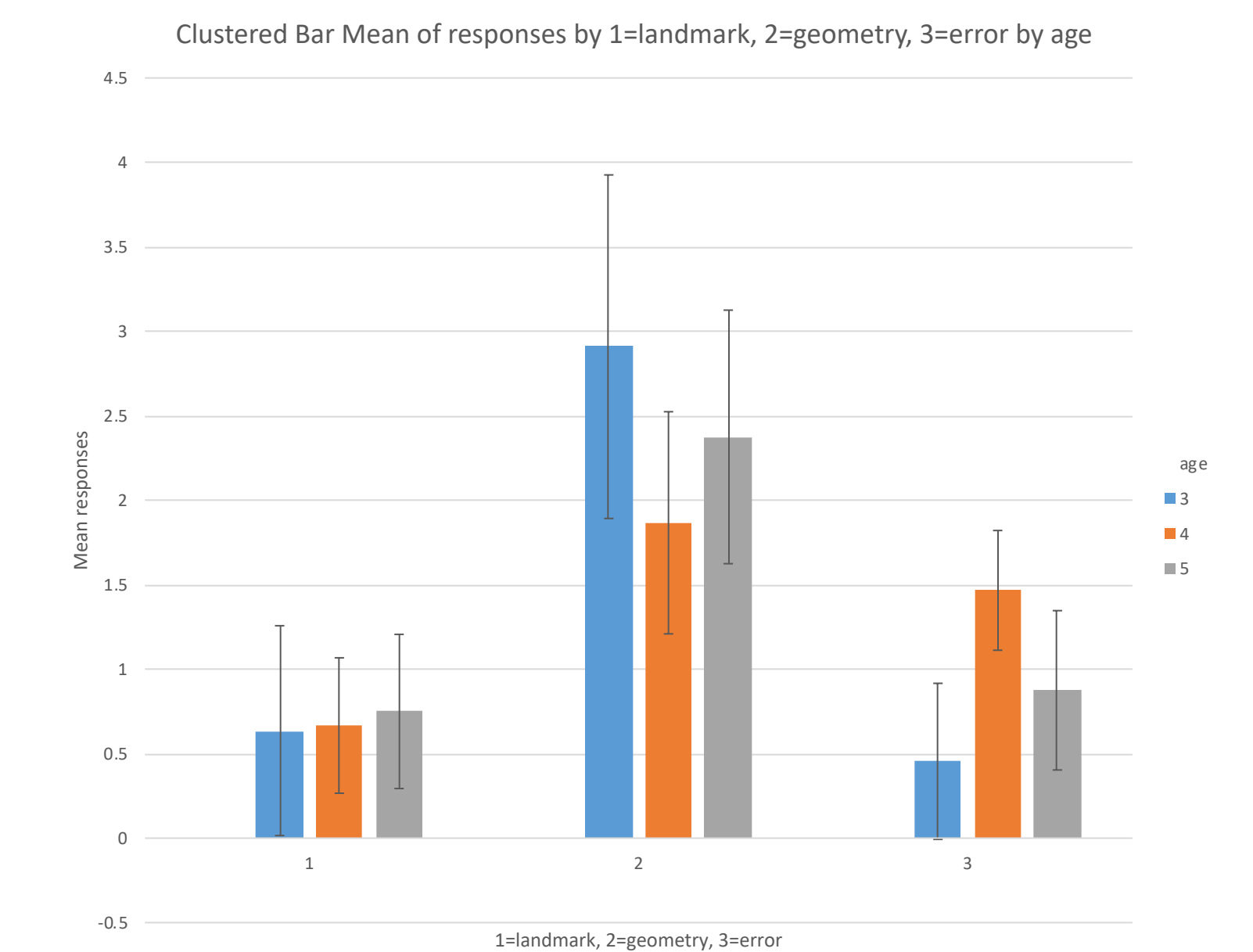
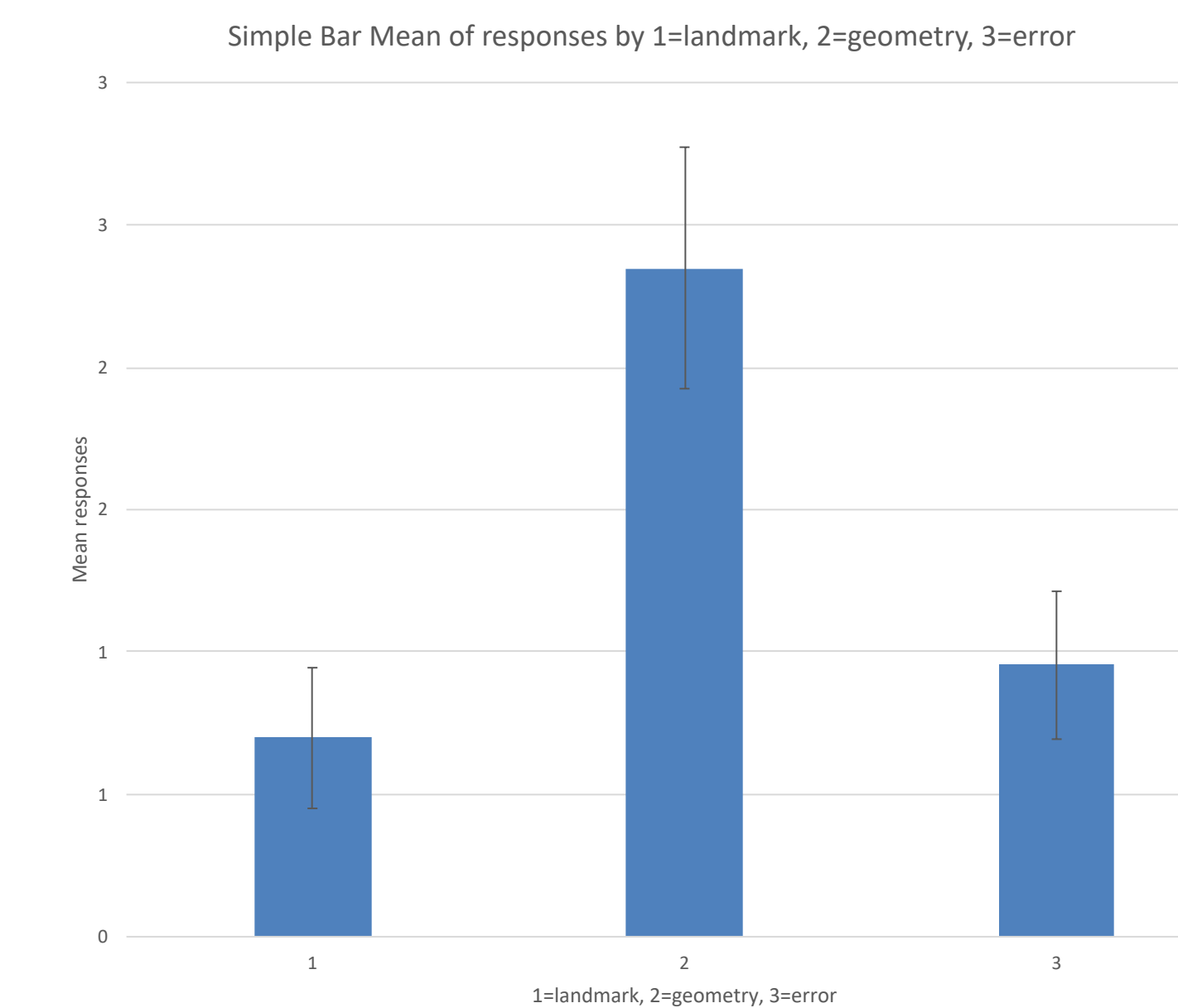
Results

- Children did not show learning across the training trials overall or in just the square or the rectangle.
- Children did have a preference for geometry at test.



Discussion

- During the 40 trials, participants did not learn to choose the corner with the correct response on the rectangle or the square. A possible explanation for this finding could be the complex cue in the square trials was too difficult and interfered with the children's ability to see the pattern in both trial types.
- However, participants preferred geometry over the landmark at test. A possible explanation could be some learning occurred, but it was too late to be detected or not enough to show up in our analyses.



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