4-14-2023

# Does Visual Dominance Influence Looking Patterns in Adults?

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# Does Visual Dominance Influence Looking Patterns in Adults?

## Erin Vokal, Lauren Tocco, Lars Overos

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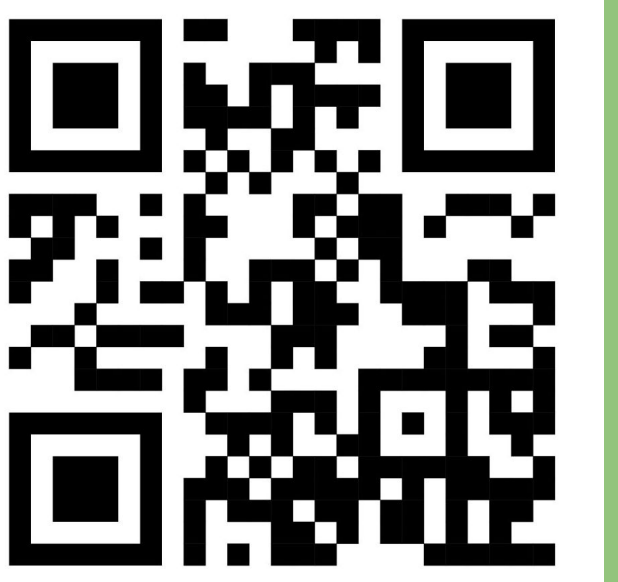
## INTRODUCTION

- By 6–9 months, infants are able to link words with their referent names (Bergelson & Swingley, 2012)
- Adults can calculate cross situational statistics and therefore can rapidly learn word-referent pairs even in highly ambiguous contexts (Yu & Smith, 2007)
- Infants hold objects close to their faces (visual dominance) (Yu & Smith, 2012) and learn object names better when the object is visually dominant
- Does visual dominance continue to aid learning into adulthood?
- Does naming the object aid learning in addition to object dominance?

### Hypotheses:

1. Adults will look quicker and more often to target objects in the dominant condition
2. Greater amount of time spent looking at the target object will help participants learn the target's names

## METHOD

- Particpants: 81 undergraduate students
- EyeLink 1000+ tracker
- Target and distractor objects
- 4 conditions (DOM_N, DOM_NoN, EQ_N, EQ_NoN)
- The percentage of time spent looking at target objects and the number of looks during blocks were recorded.
- Test trials
- Pointing Task

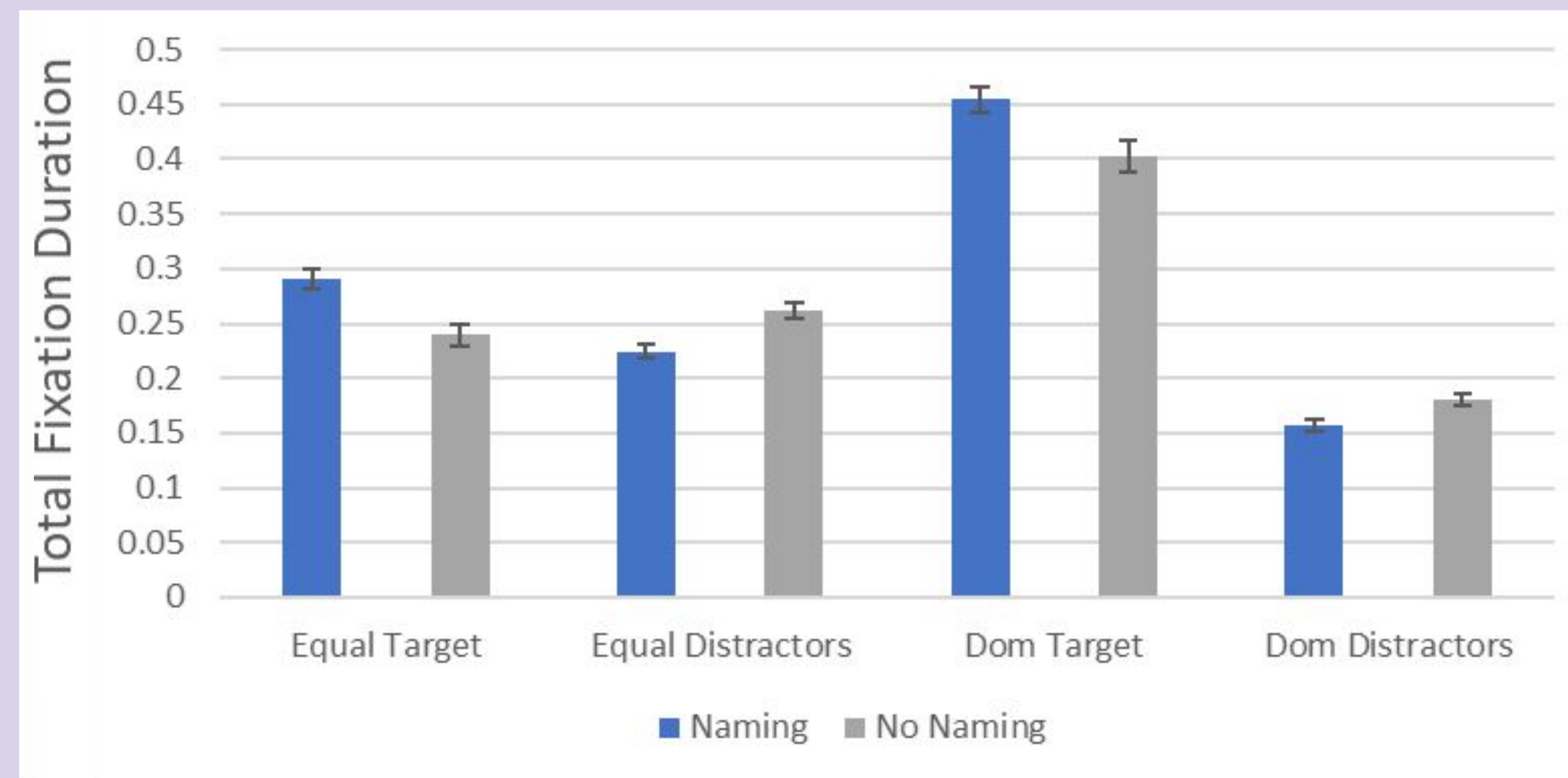Visually Dominant (DOM) condition

Equal (EQ) Control Condition

**Figure 1:** Effect of dominance on looking (increased looking at the Dominant target compared to the Equal target, in both naming and no naming conditions) and an effect of naming (increased looking at the target compared to the no naming conditions).

## DISCUSSION

- Participants learned the names, when they were provided.
- Visual dominance aids in looking patterns, though naming also influences whether participants look to the target.
  - When the target was both dominant and named, participants looked at it for longer than non-named and non-dominant objects.
- We did not tell participants the goal of the experiment.
- Participants potentially could learn in the No Naming conditions though the testing trials.
- Potential future research topics: participant age or word color could influence word learning.
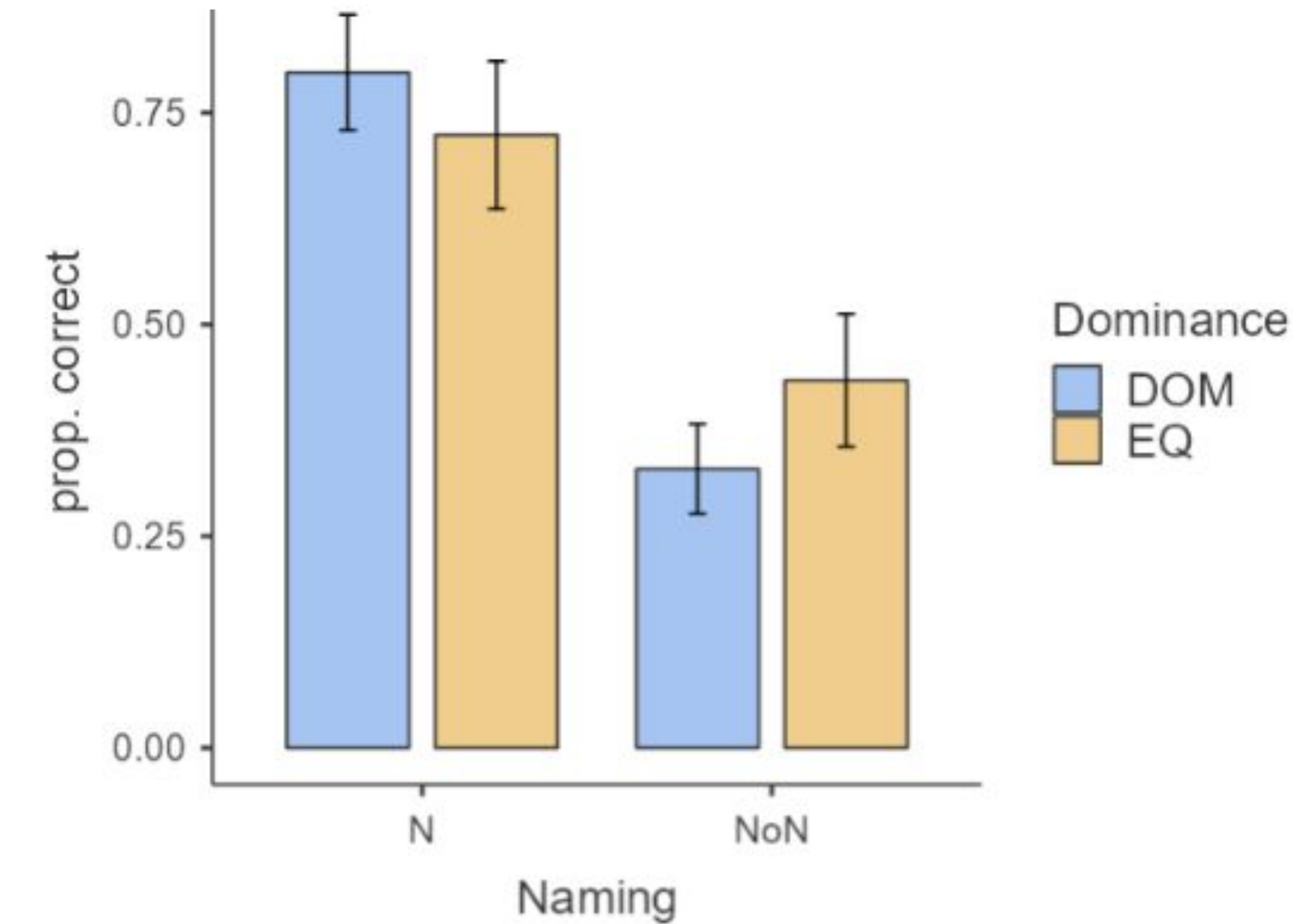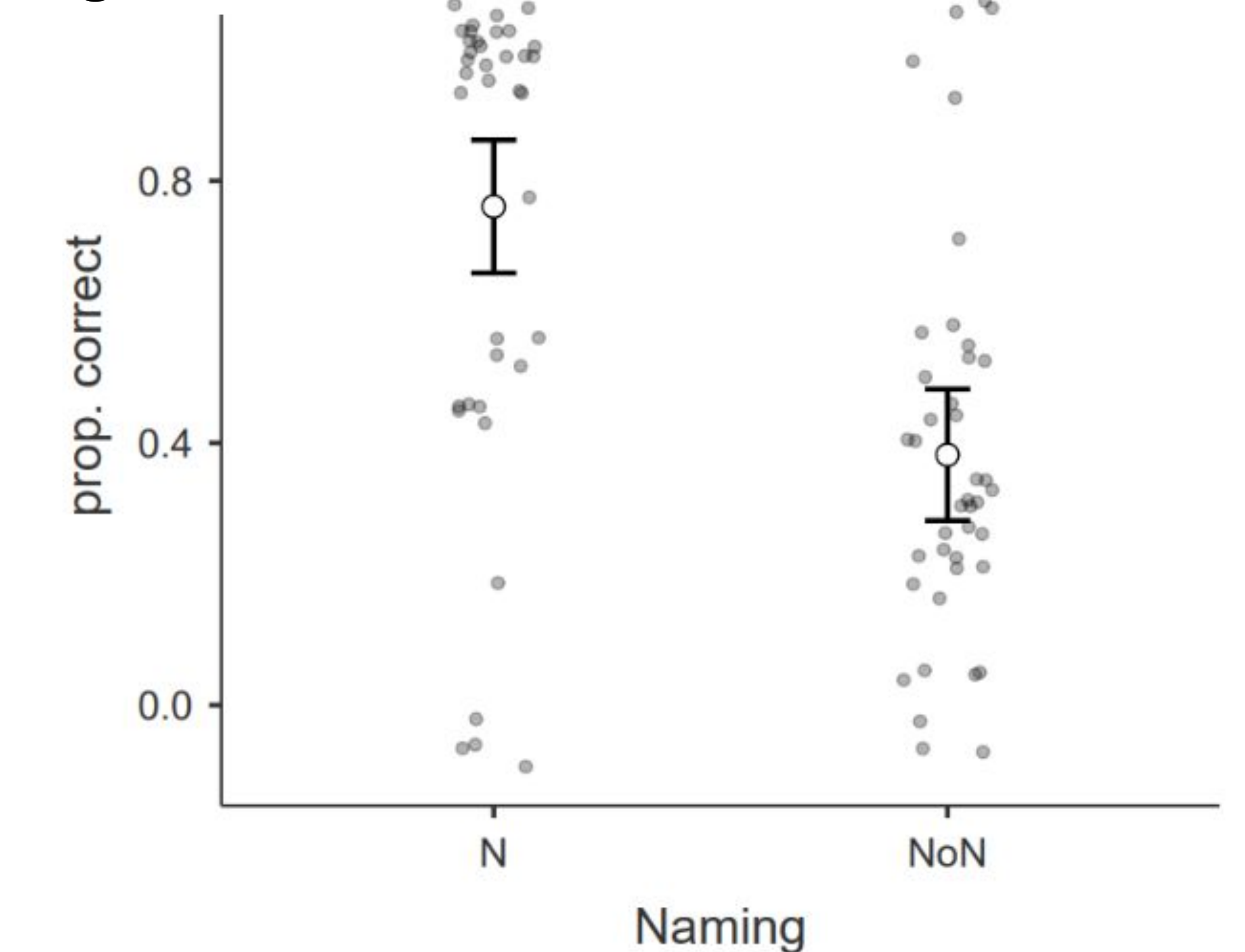
**Figure 2**

**Figure 3**

**Figure 2** shows the mean proportion of correct answers from the pointing task (i.e., word learning). There was no significant effect of dominance on learning, but was a significant effect of naming on learning.

**Figure 3** shows the word learning data per participant, collapsing across dominance. Participants got more correct when objects were named (i.e., they learned the names).