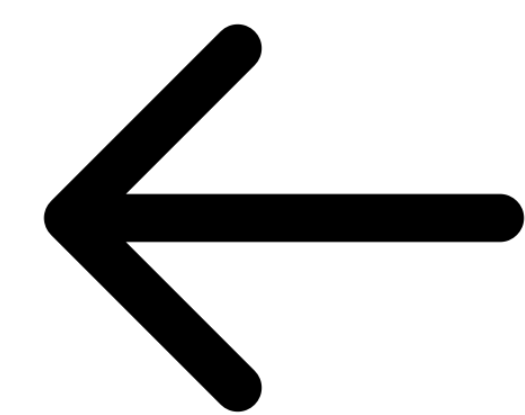




Many have heard of the invisible gorilla experiment. This is an example of inattention blindness, the failure to see/perceive a stimulus due to lack of attention



Cueing occurs when the viewer's attention is intentionally re-focused to another object.

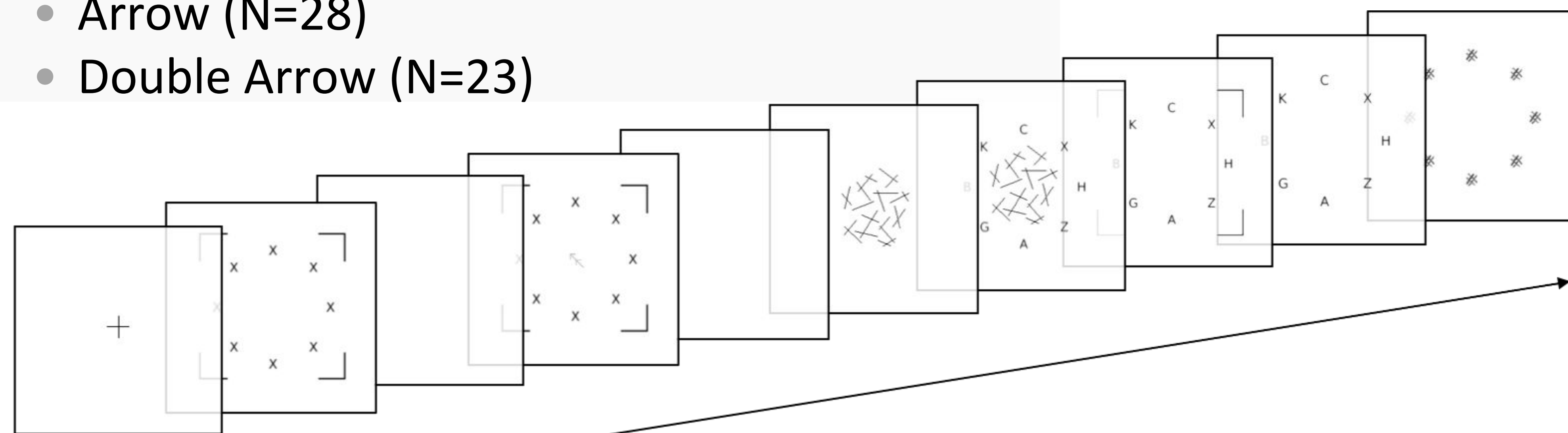


### Methods

There are 3 parts to each trial:

1. A/E letter discrimination task
2. Corner distractor task
3. Symbol detection task

- 2 cue types: arrow:  neutral: 
- We used 2 arrow cues to see how robust the arrow shape would be for cueing
- Within-subjects manipulation: Cue (present/absent) X Cue Validity (valid/invalid/control)
- Measurements: A/E accuracy, IB rate, RT
- 2 conditions:
  - Arrow (N=28)
  - Double Arrow (N=23)



### Research Questions

1. Is there a way for us to induce inattention blindness (IB) robustly?
2. Do unreported cues (IB trials) still have an effect on directing your attention?

### Results (1)

- Participants with less than 2 trials in each condition were excluded, leaving N=14 for the Arrow condition, and N=14 for Double Arrow.
- This paradigm provides a way to induce inattention blindness (IB) robustly:
- **IB rate** (across 2 conditions, N=28): 37.6%

### Conclusion

- We can induce robust inattention blindness
- This paradigm allows for direct comparisons between seen and unseen trials
- Arrows are effective cues even when we do not see them

Did you see the letter A or E in the ring of letters?

Did the corners move in an IN-OUT-IN pattern?

Did you see a symbol in the middle of the ring?

### Motivation

- Existing inattention blindness paradigms are not robust
- No within subject comparisons possible
- What can we test with this paradigm?

### Results (2)

Effect sizes were significant in all conditions. We calculate cueing effect size by doing RT of invalid cues - RT of valid cues:

Condition	Seen (z-test)	Unseen (z-test)
Arrow (N=14)	178.30 (.00081)	130.53 (.031)
Double Arrow (N=14)	152.48 (.017)	264.21 (.012)

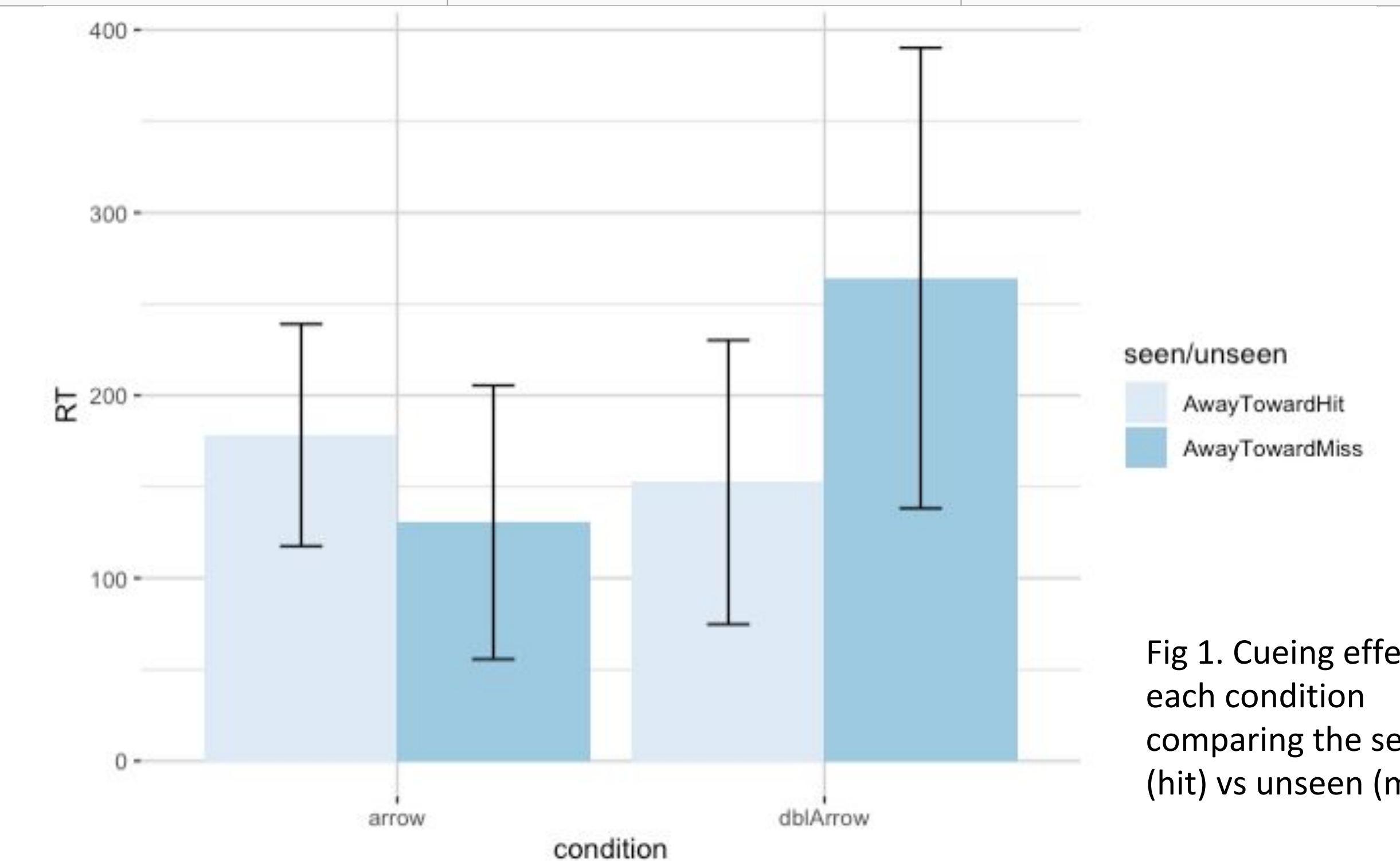


Fig 1. Cueing effects of each condition comparing the seen (hit) vs unseen (miss)

### Future Directions

- Experiment with more parameters to increase the power of this paradigm: changing sizes of cues, SOAs, etc...