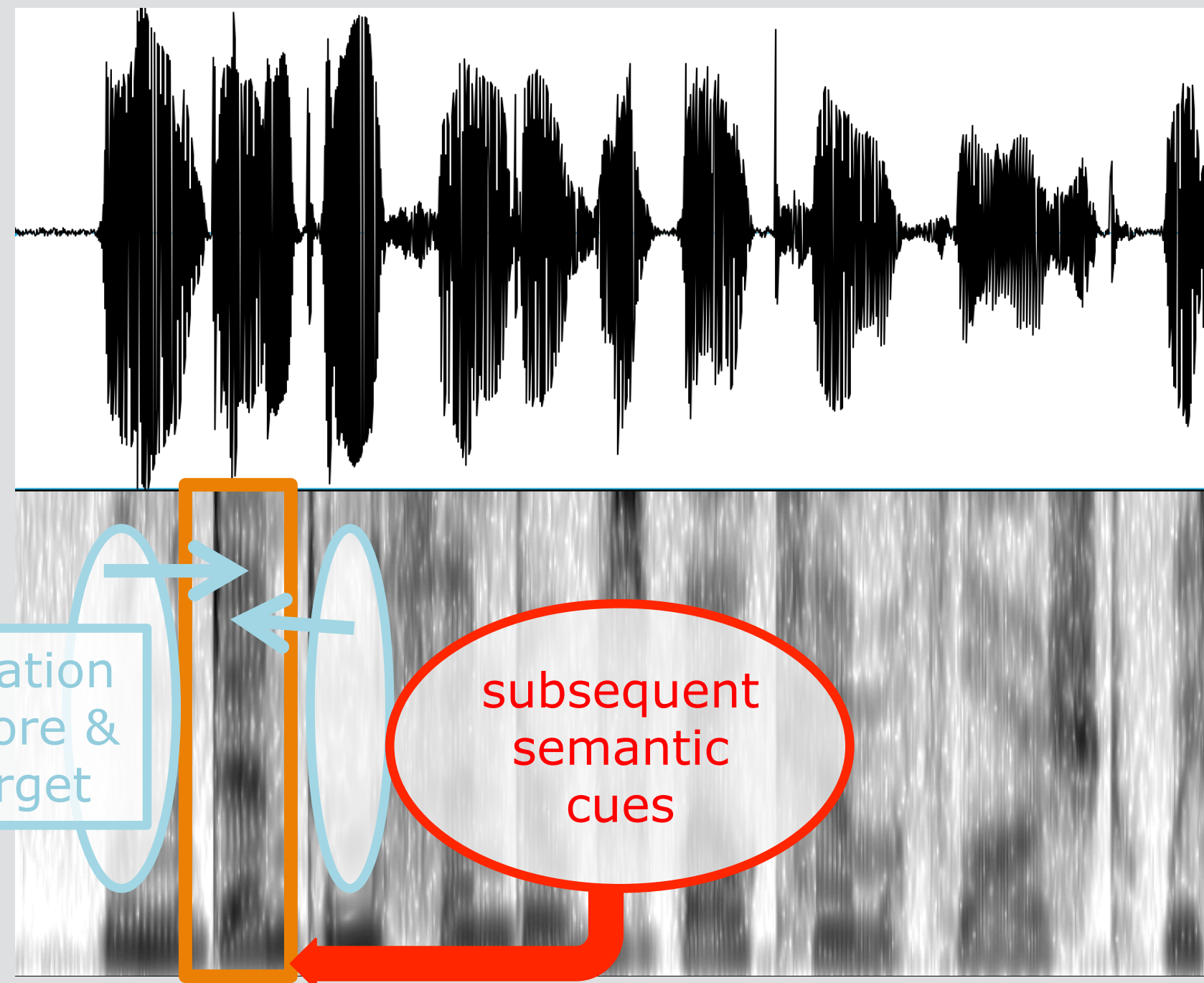


## Overview & Question

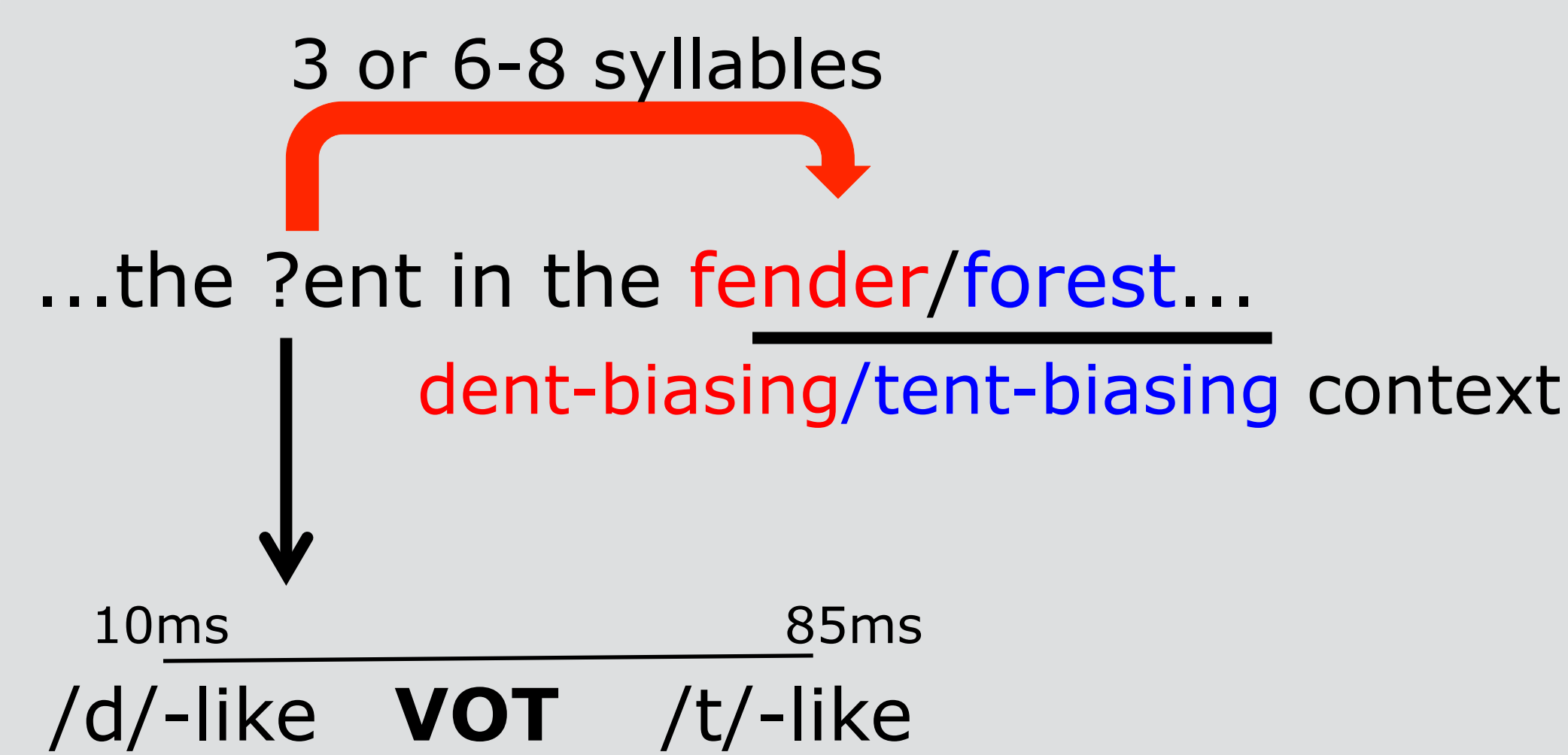


"When the ?ent in the **fender** was noticed..."

**Q1:** Can listeners maintain uncertainty/information about input for both ambiguous *and* unambiguous input? For how long?

**Q2:** Does ambiguity affect when listeners make a decision?

## Methods



**Task:** did you hear "tent" or "dent"?

**Experiment 1:** Subjects forced to respond *after* whole sentence has been played

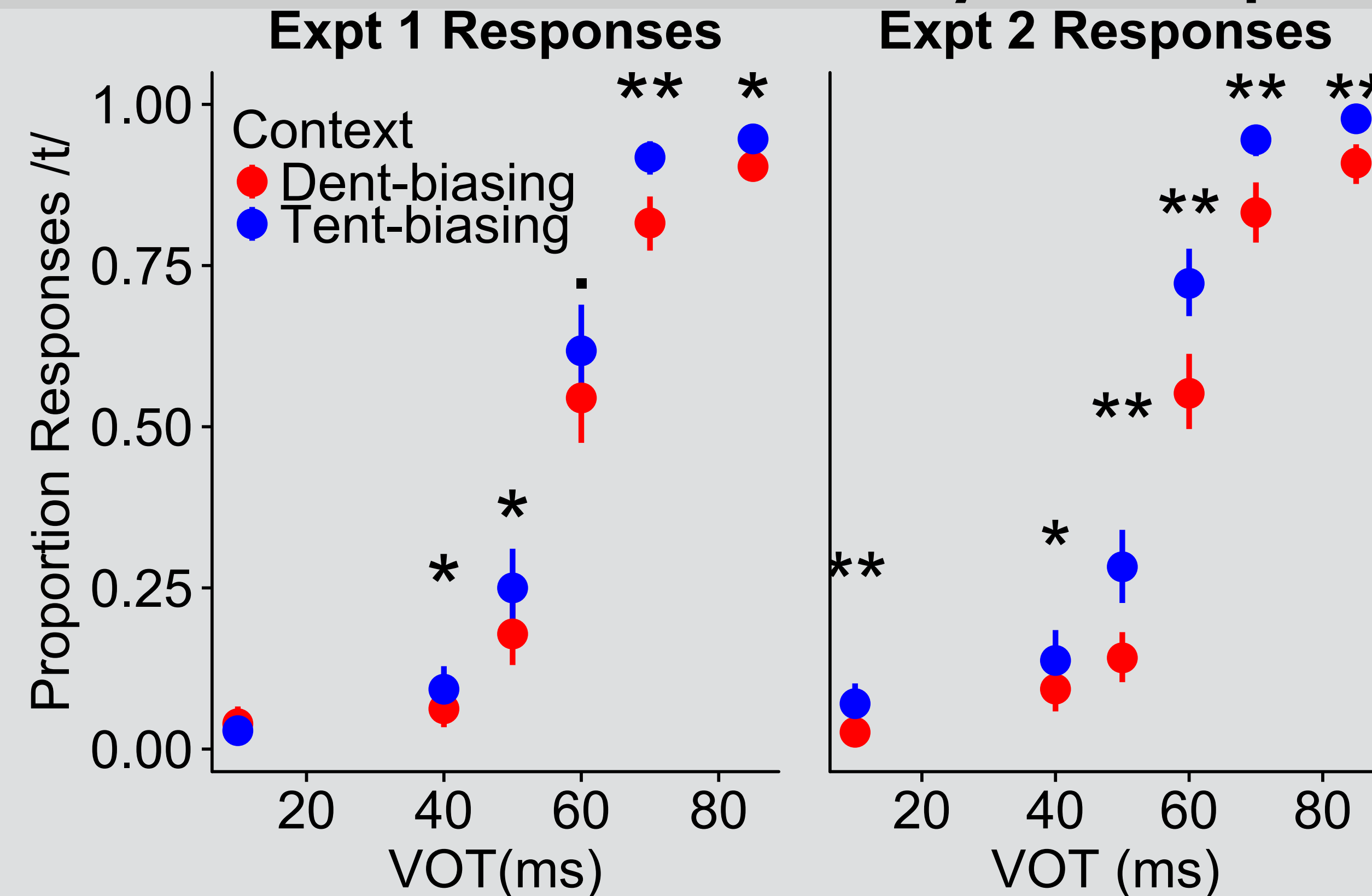
**Experiment 2:** Subjects can respond whenever they want

Mechanical Turk subjects (Exp 1: N = 39; Exp 2: N = 37)  
 VOTs used: 10, 40, 50, 60, 85ms  
 7 sentence frames repeated for each context, distance, & VOT combination = 168 total trials (no fillers)

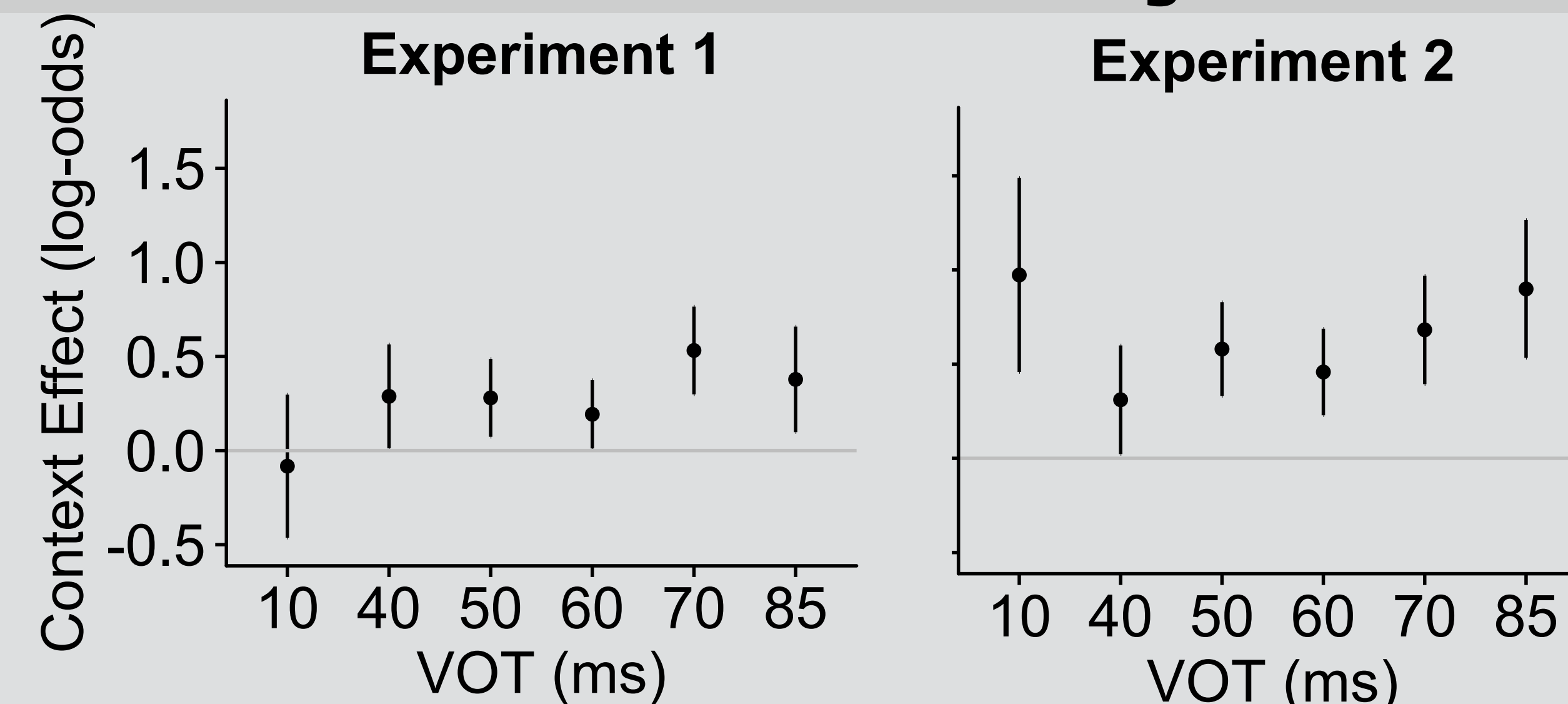
## Q1: Uncertainty Maintenance for All Stimuli?

If listeners maintain information about the manipulated sound regardless of ambiguity & distance, they should integrate later context into their responses across all VOTs and context distances

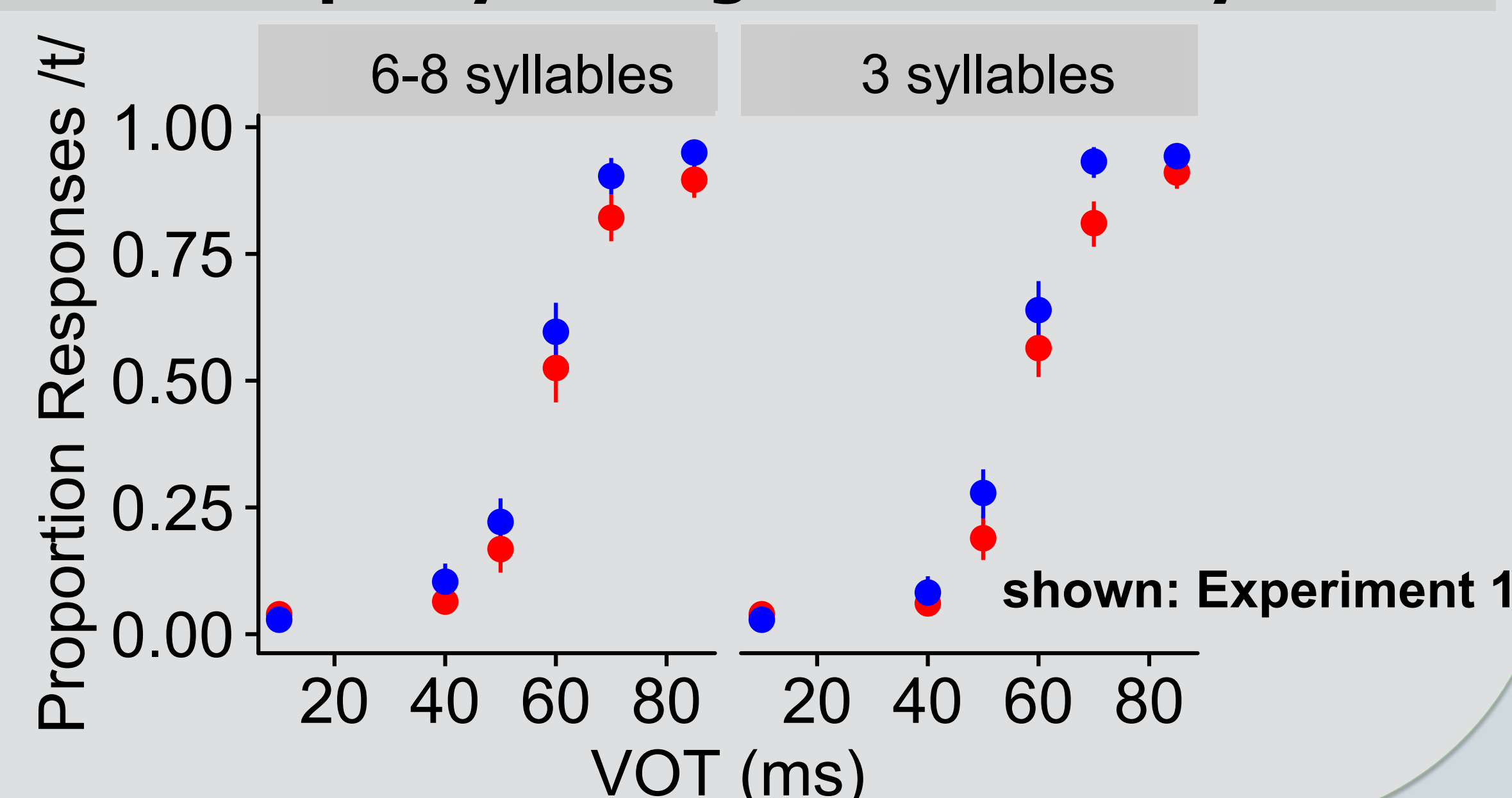
### Listeners maintain uncertainty about input



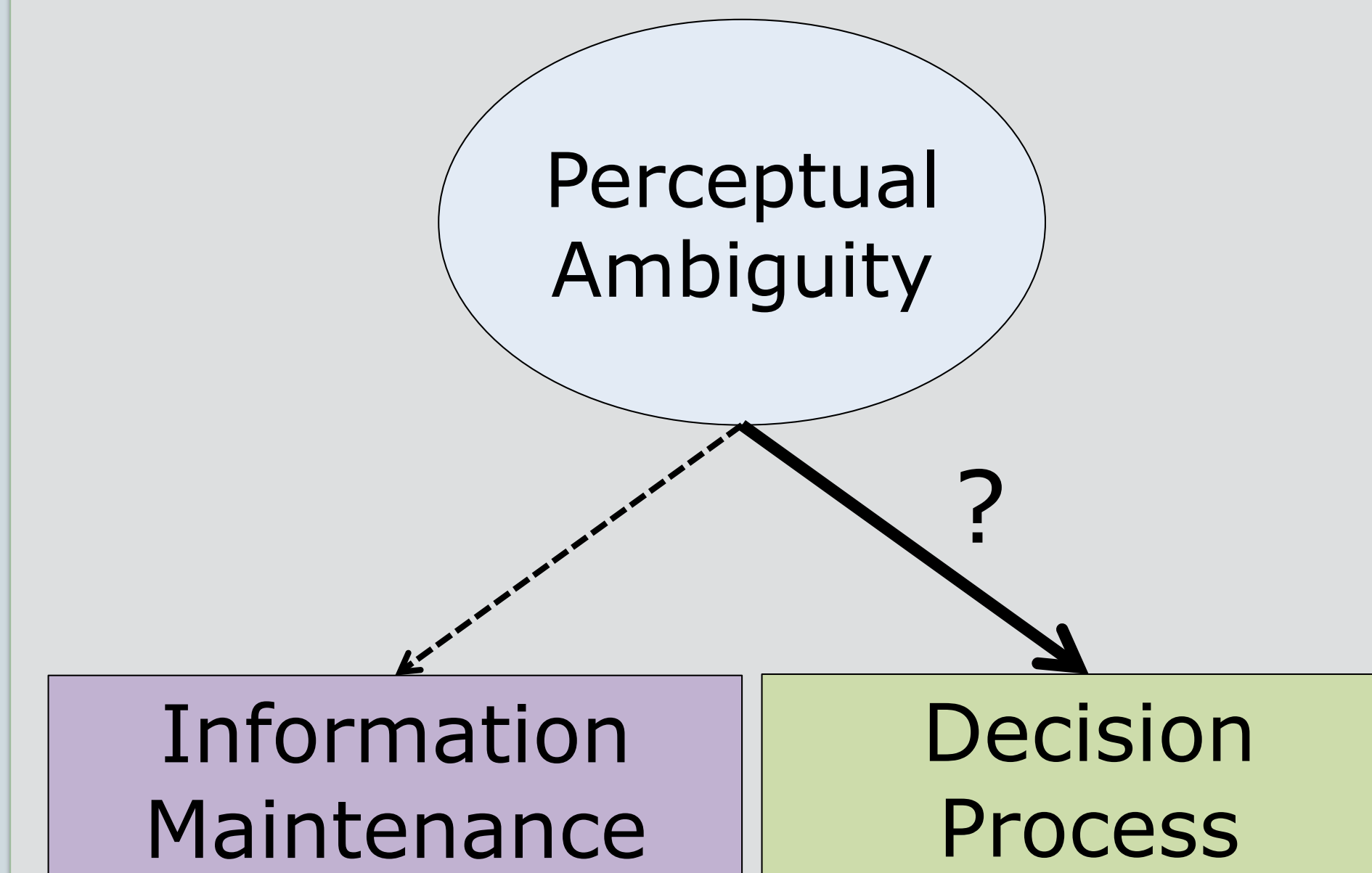
### Maintenance not limited to ambiguous VOTs



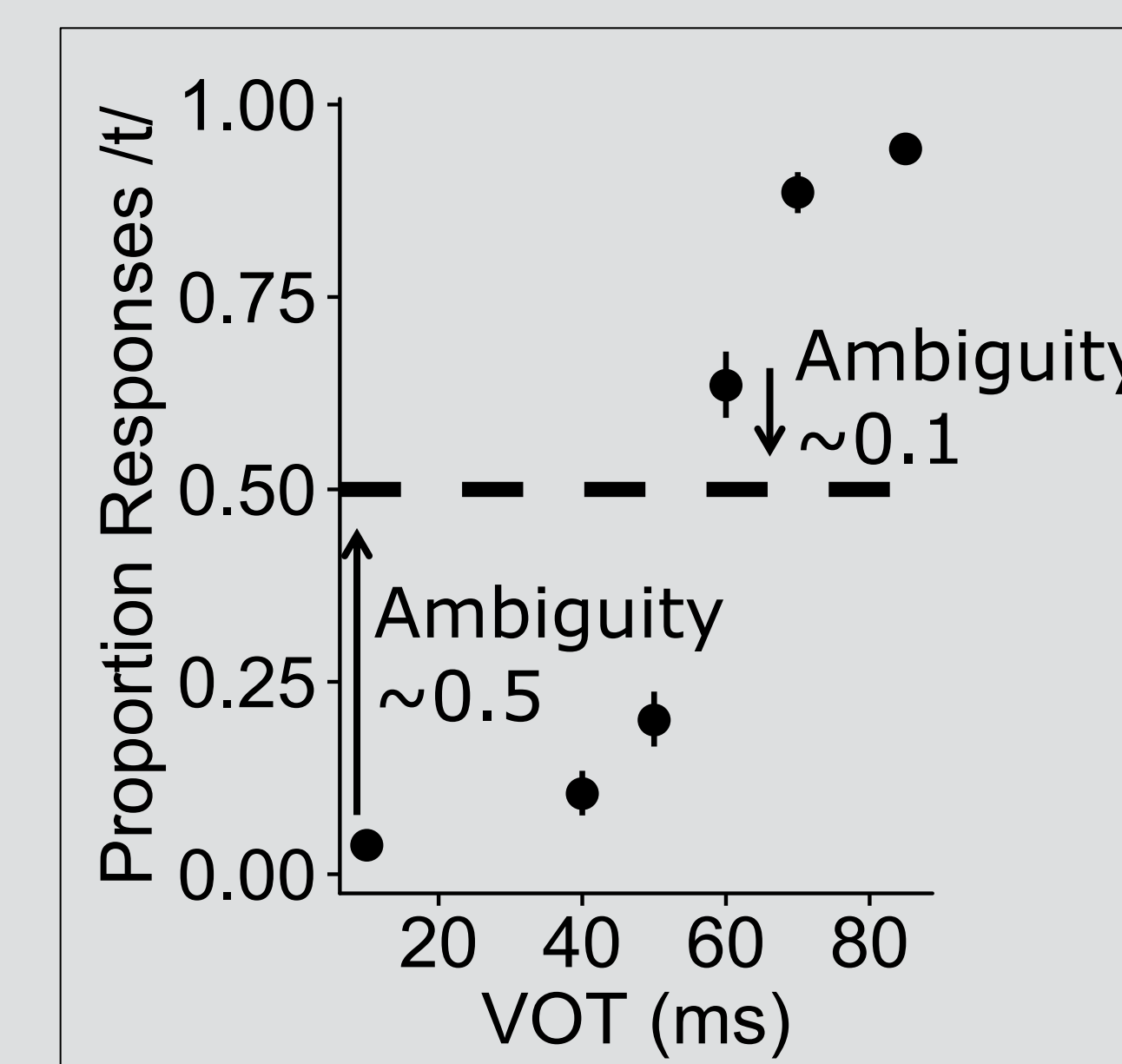
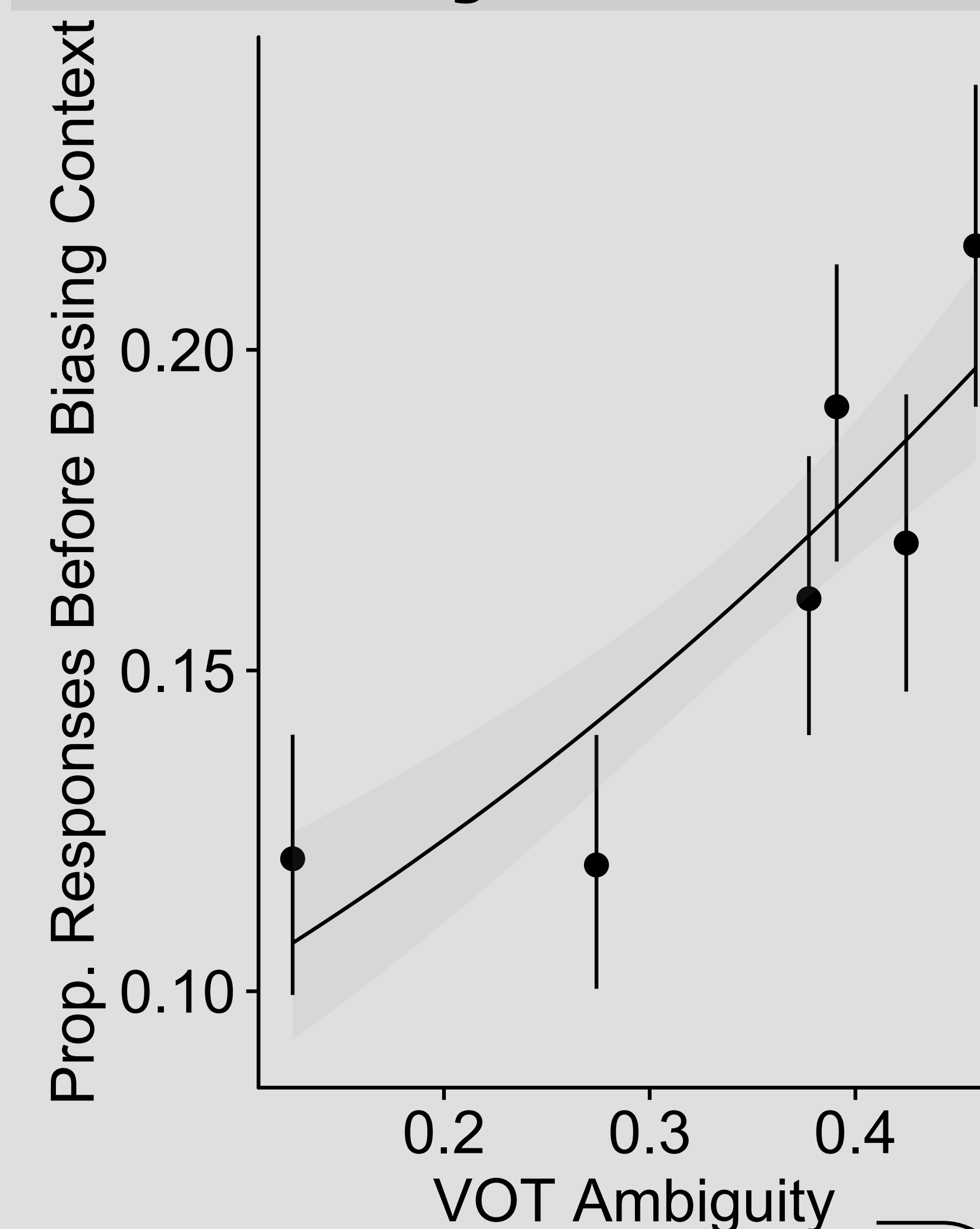
### Maintenance equally strong for 3 & 6-8 syllables



## Q2: Do Listeners Delay Decision Process For Ambiguous Stimuli?



### More early responses for unambiguous stimuli



## Conclusions

Listeners can maintain information about input **beyond word boundaries** (~8 syllables) and **for both ambiguous and unambiguous input**

However, for **ambiguous stimuli**, listeners are **more likely to wait** for additional information before making a decision

## Future Work

### Is information maintained after the decision process?

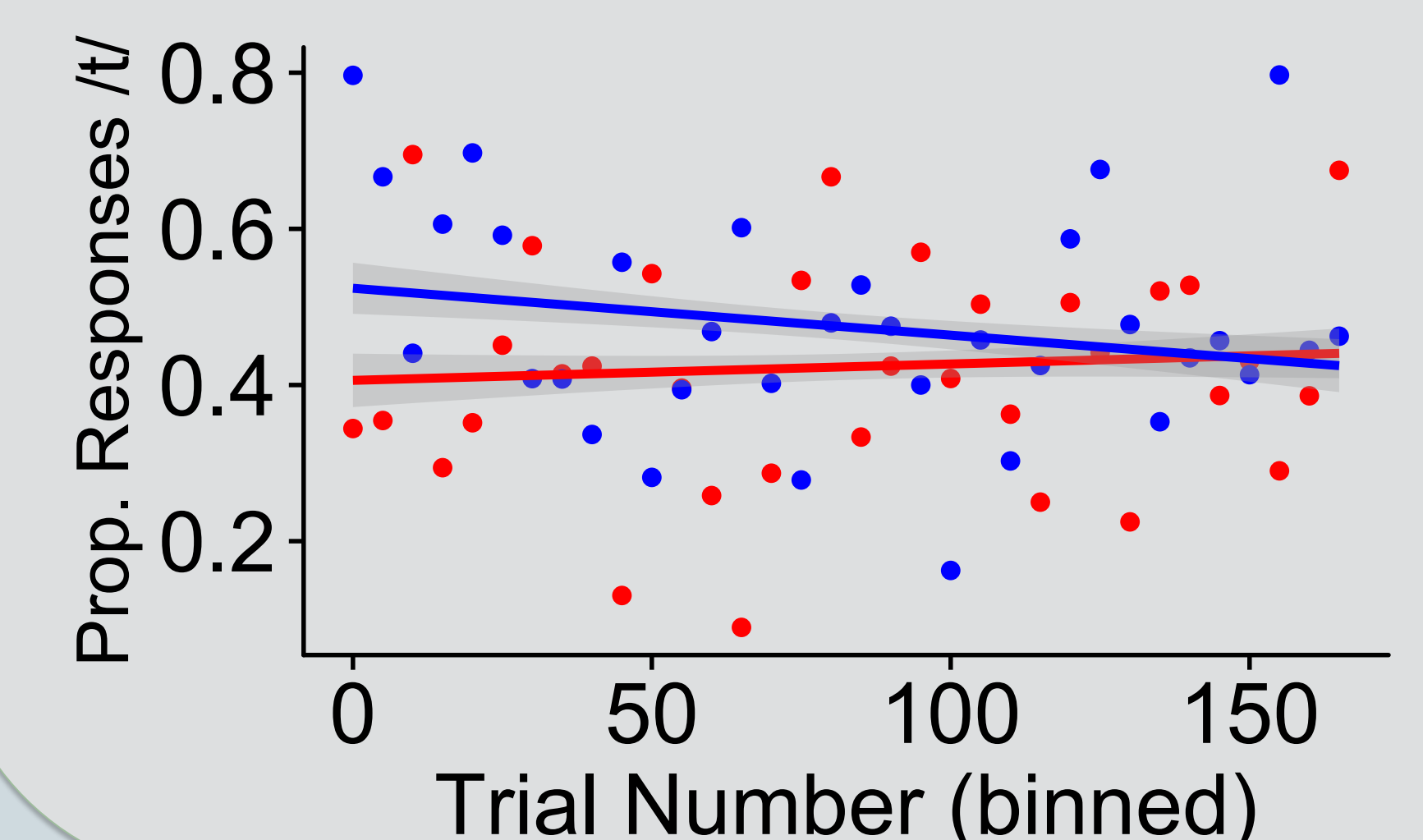
What is the *nature* of these maintained representations?

- Representations of probabilities?
- Maintenance of actual acoustic features?

### Is information maintenance fixed or adaptable?

Is maintenance a default strategy?

- Yes? Context effect present even from very beginning of task in both experiments (below: for Exp 1)



## Acknowledgments

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