



# Focus alternatives are available early: No influence from semantic priming or particle choice

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## I. Introduction

**Focus Alternatives.** To interpret focus, the discourse relevant alternative set must be inferred [1]

- (1)  $[[\text{Jonah only brought the [violin]}_F] = \text{BRING}(\mathbf{violin})(\mathbf{jonah}) \wedge \forall x \in \text{ALTS}. [\neg \text{BRING}(x)(\mathbf{jonah})]$   
 ALTS = {guitar, trumpet, ...}

**Two Stage Model.** Only prior model for selecting alternatives online [2,3]

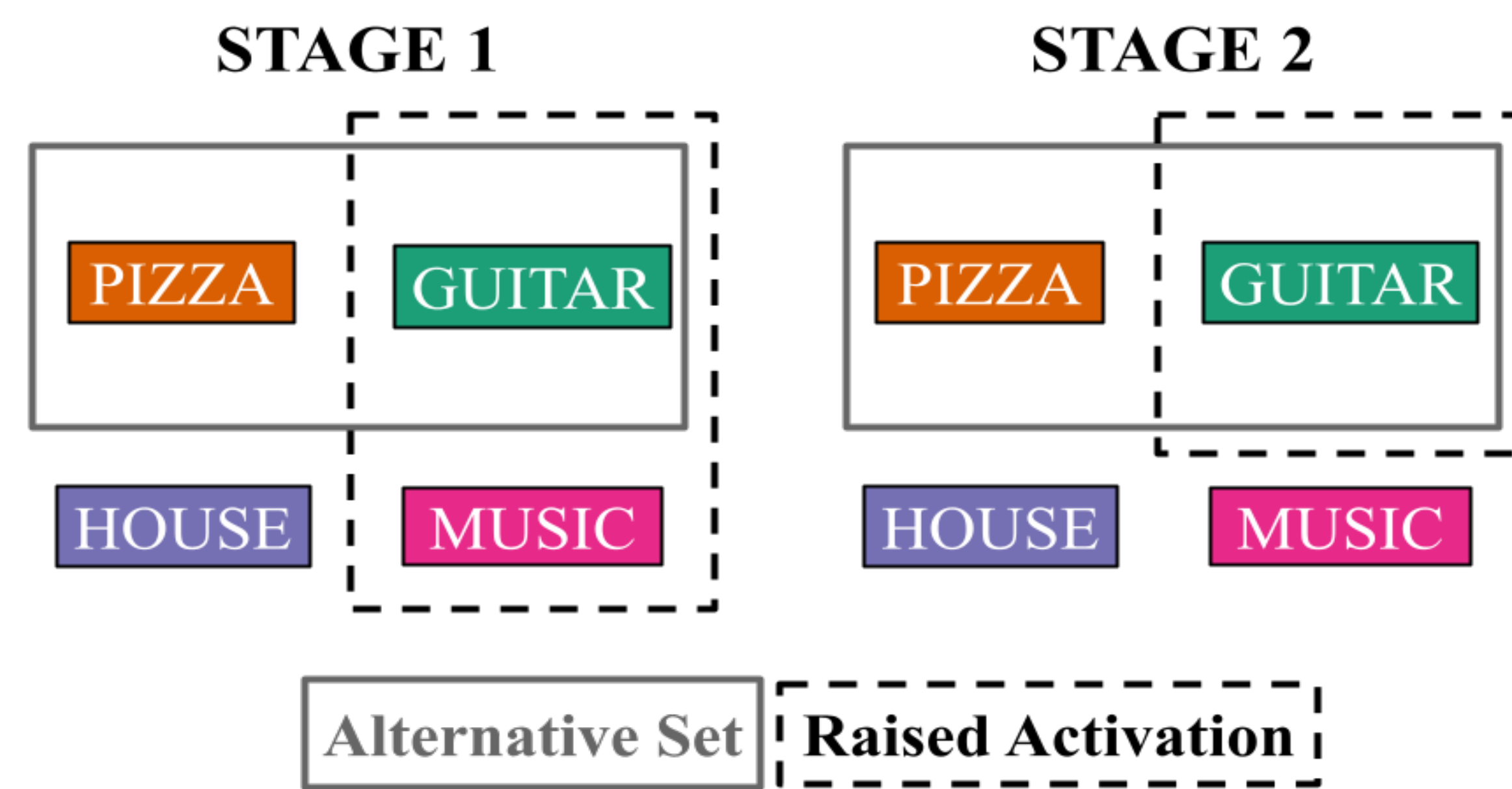
STAGE 1	Priming-Dependent
Discourse- <i>Insensitive</i> Semantic Priming	Semantic priming from focus feeds alternative selection
STAGE 2	Late-Generation
Discourse- <i>Sensitive</i> Alternative Selection	Time required to represent (just) relevant alternatives

## II. A problem for the Two-Stage Model

**Non-Associate Alternatives.** Discourse relevant alternatives are not always semantic associates of their foci

- (2) I brought the guitar and the pizza...  
 Jonah only brought the [violin]<sub>F</sub>  
 ALTS = {guitar, pizza, ...}

Condition	Target
Associate Alternative	GUITAR
Non-Associate Alternative	PIZZA
Associate Non-Alternative	MUSIC
Control	HOUSE



## III. Research questions

**Question.** How long after encountering focus do Non-Associate Alternatives become available?

Two **Priming-Independent** alternatives to the **Two-Stage Model**

### Delayed-Access Model.

Initially Discourse-*Insensitive*  
 → **Late-Generation** of alternative set  
 → NonAssoc Alts *not available* immediately

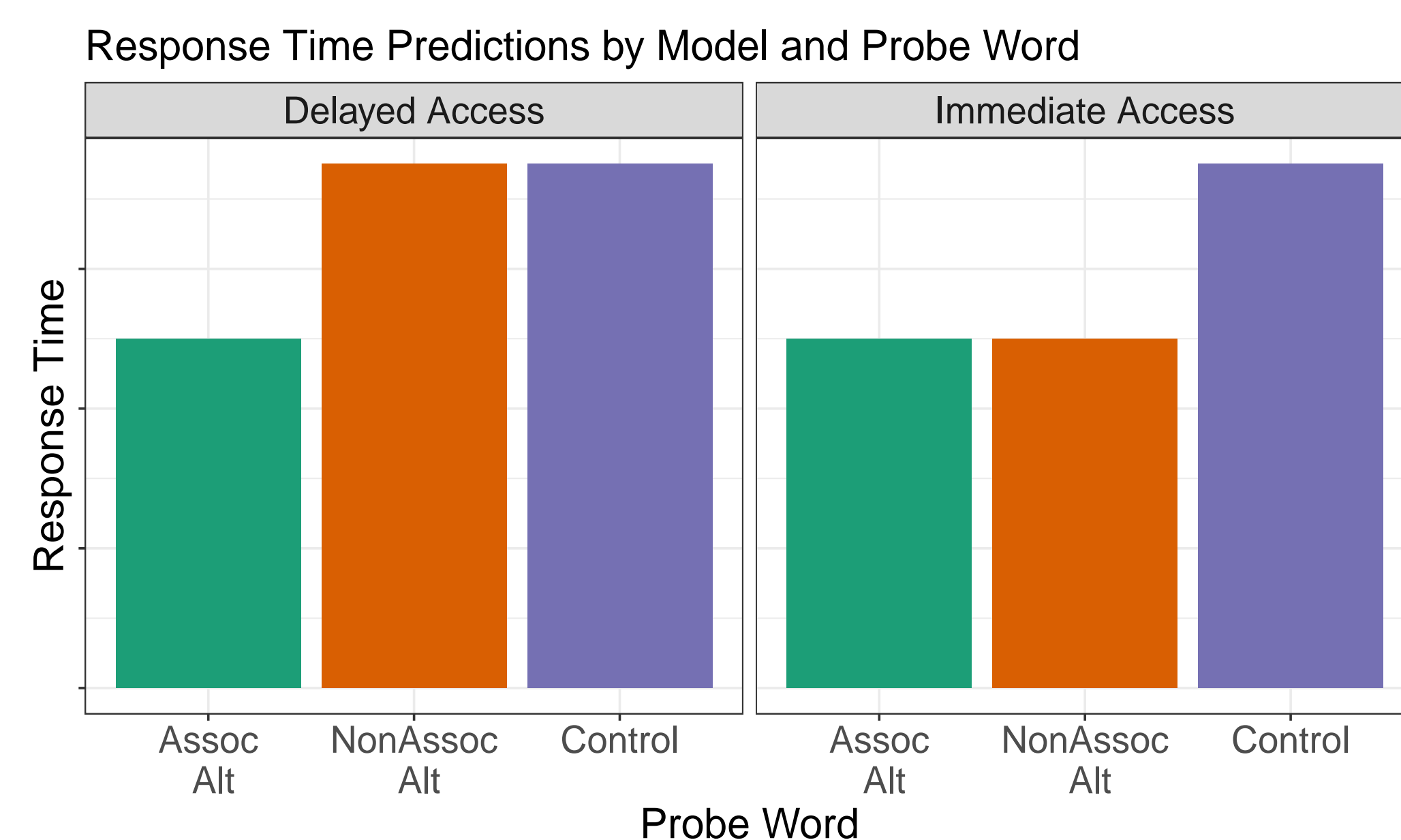
### Immediate-Access Model.

Initially Discourse-*Sensitive*  
 → **Early-Generation** of alternative set  
 → NonAssoc Alts *available* immediately

**Subquestion.** Do different focus particles yield different patterns of availability?

### Exhaustive-Advantage.

Alternatives negated under exhaustive focus (*only*) but asserted under additive focus (*also*)  
 → Exhaustive focus might involve reactivating alternatives to perform negation  
 → Non-Associate Alternatives *available earlier* under exhaustive focus



## IV. Materials and method

30 Audio Dialogues each with 3 probes controlled for length, freq, ON size, and LSA cosine-similarity to focus

### Example Item.

A: Jonah brought the guitar and the pizza to band practice at the new house  
 B<sub>1</sub>: No, he **only** brought the [violin]<sub>F</sub>  
 B<sub>2</sub>: He **also** brought the [violin]<sub>F</sub>

EXH  
ADD

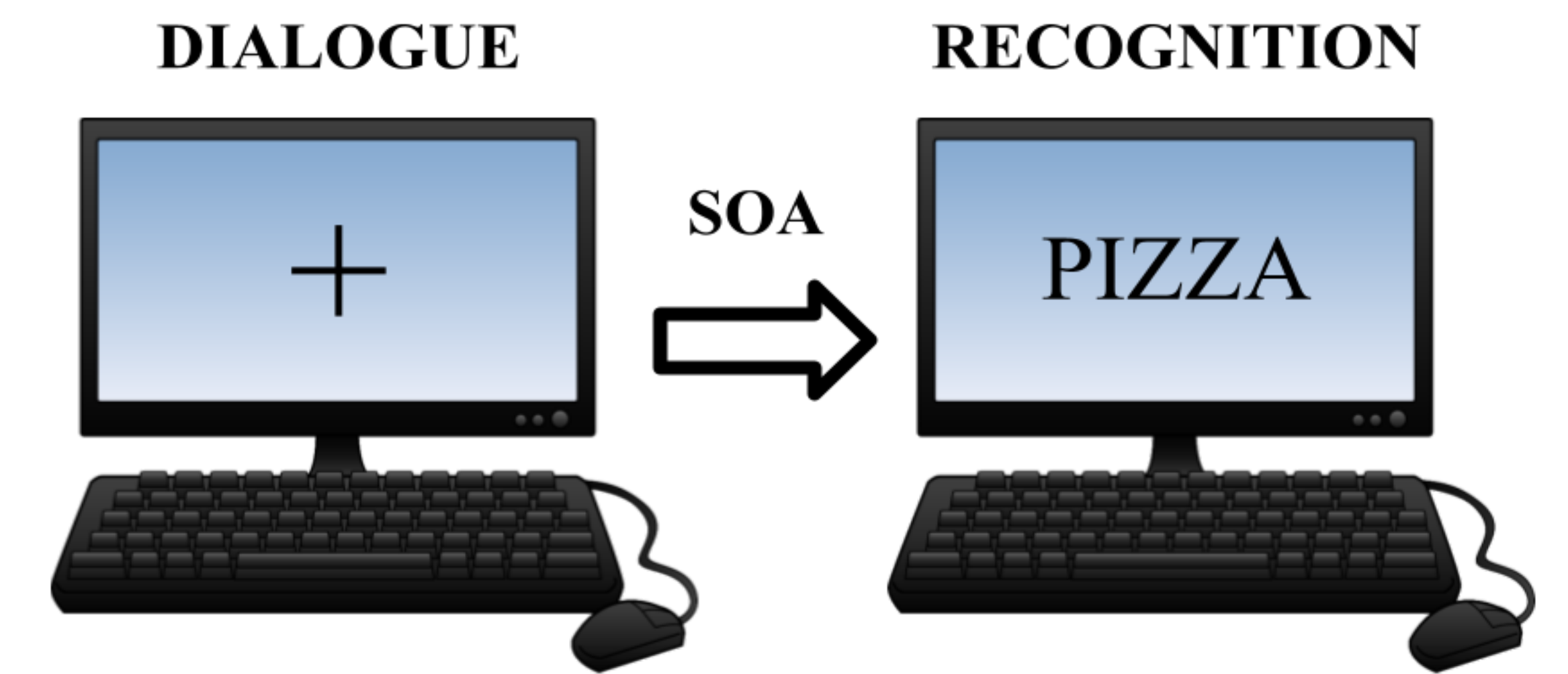
Condition	Probe
Associate Alternative	GUITAR
Non-Associate Alternative	PIZZA
Control	HOUSE

### Method.

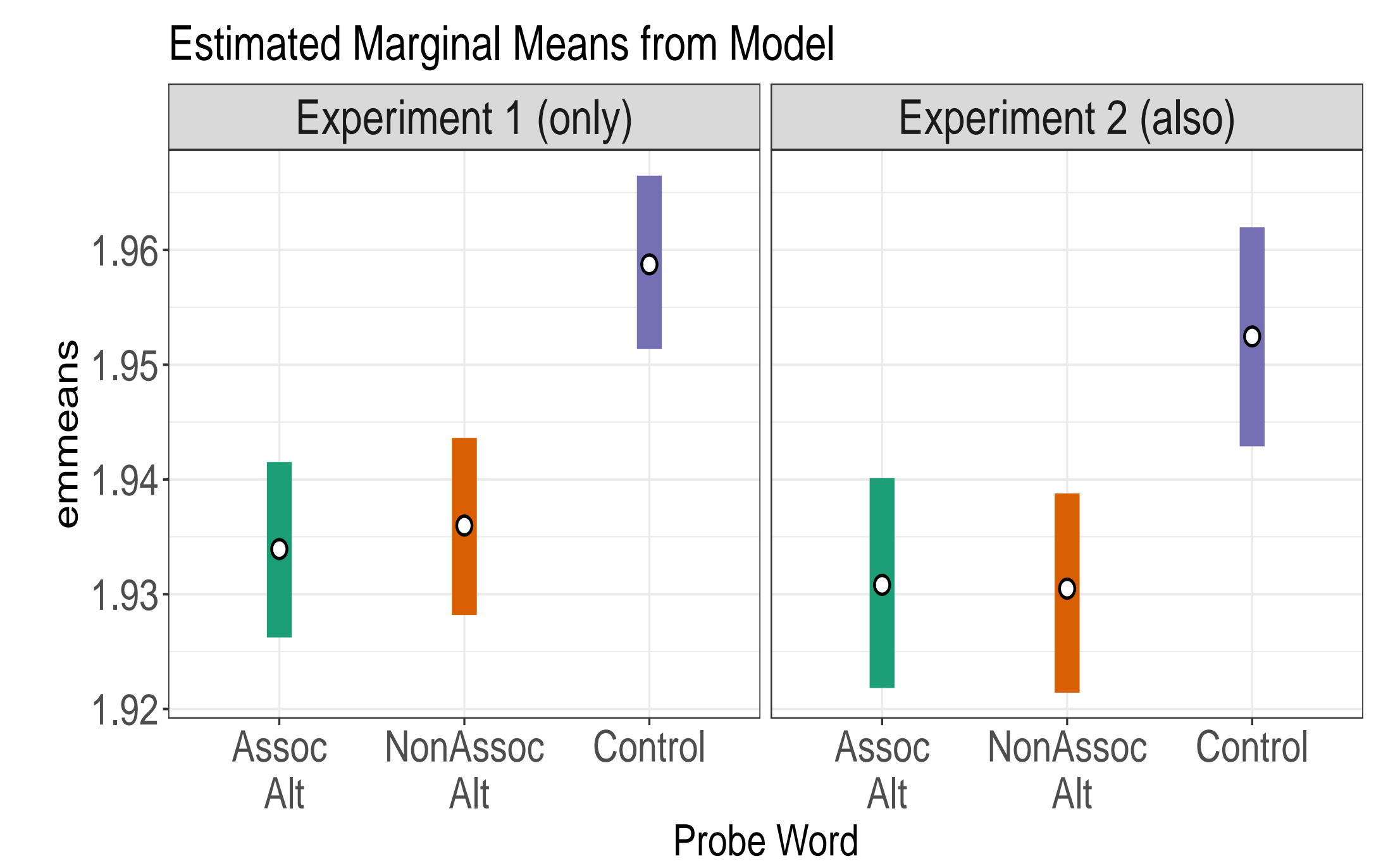
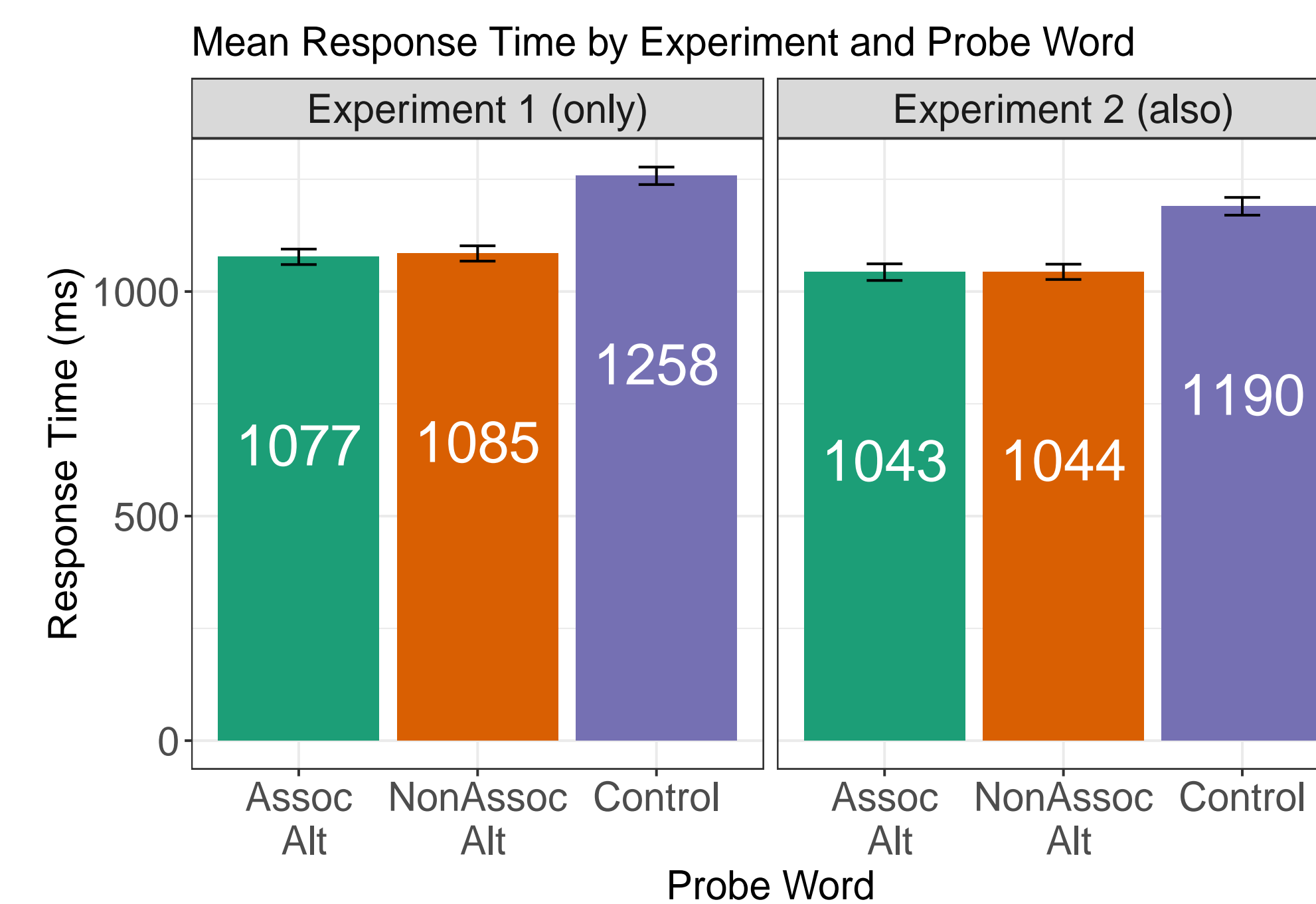
- Cross-modal probe recognition ( $N \approx 60$ )
- Online pilots replicated main findings
- Pilot data used as informative prior

### Model Contrasts (Log RTs).

- Focus (Alts vs. Control)
- Priming (Assoc Alt vs. NonAssoc Alt)



## VI. Results



### Experiment 1 (only).

- ✓ Focus ( $\beta = -0.024$ ,  $\text{CrI} = [-0.028, -0.019]$ ,  $\text{BF} > 100$ )
- ✗ Priming ( $\beta = 0.002$ ,  $\text{CrI} = [-0.002, 0.006]$ ,  $\text{BF} = 0.584$ )

### Experiment 2 (also).

- ✓ Focus ( $\beta = -0.022$ ,  $\text{CrI} = [-0.030, -0.013]$ ,  $\text{BF} > 100$ )
- ✗ Priming ( $\beta = 0.000$ ,  $\text{CrI} = [-0.006, 0.006]$ ,  $\text{BF} = 0.315$ )

## VII. Conclusions, references, and acknowledgments

- ▶ Evidence against **Priming-Dependence** and **Late-Generation**
  - ▷ Incompatible with **Two-Stage** and **Delayed-Access Model**
  - ▷ Support for **Immediate-Access Model**
- ▶ Choice of focus particle choice had little effect
  - ▷ Evidence against **Exhaustive-Advantage**
  - ▷ Results driven by contents of the alternative set

[1] Rooth (1992). A Theory of Focus Interpretation. NLS. [2] Husband & Ferreira (2016). The role of selection in the comprehension of focus alternatives. LCN. [3] Gotzner & Spalek (2019). The life and times of focus alternatives. LLC.

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