

Background

Phonological overlap predicts verb choice (give/hand/pass)[3] and object choice [4] in sentence production. Predicts errors in lexical access [1,2].

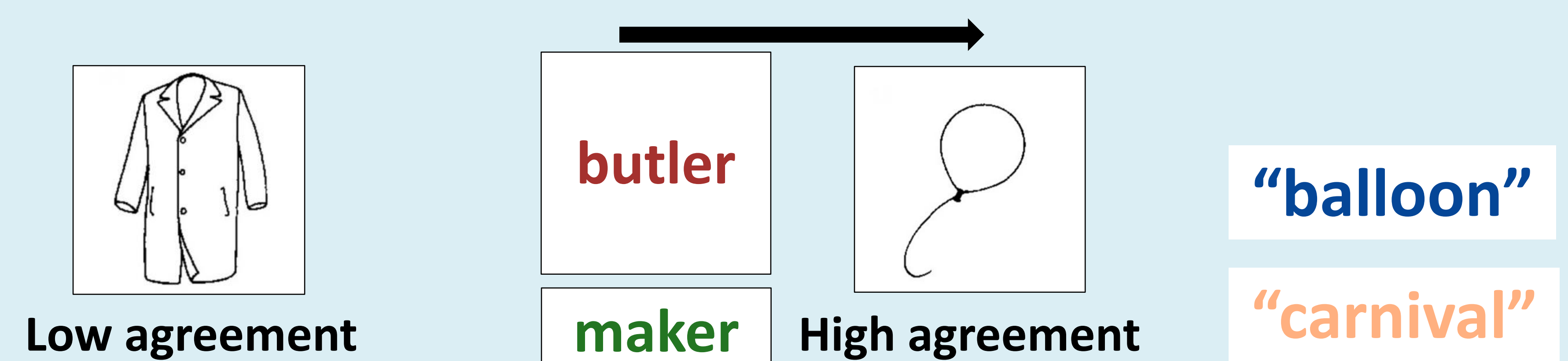
If selection is influenced by ease of access, phonological interference should increase naming latency for dominant words, and use of other names.

Participants named pictures/words one at a time [6].

| | n | pictures | words |
|--------------|-----|----------------------|---------------------|
| Norms | 46 | 83 target | -- |
| Exp 1 | 102 | 18 target 36 fill | 18 prime 36 fill |
| Exp 2 | 82 | 40 target 40 fill | 40 prime 40 fill |

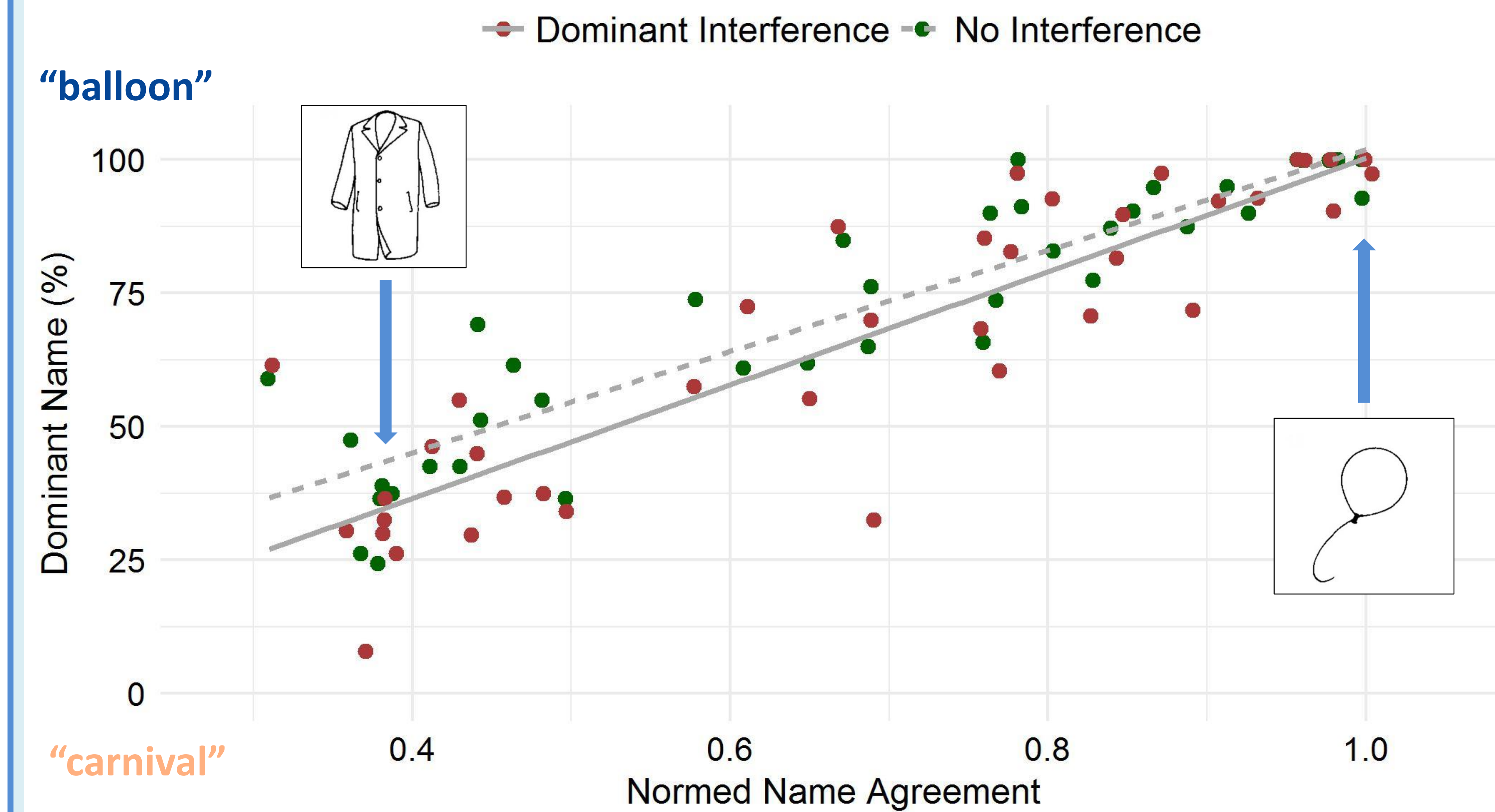
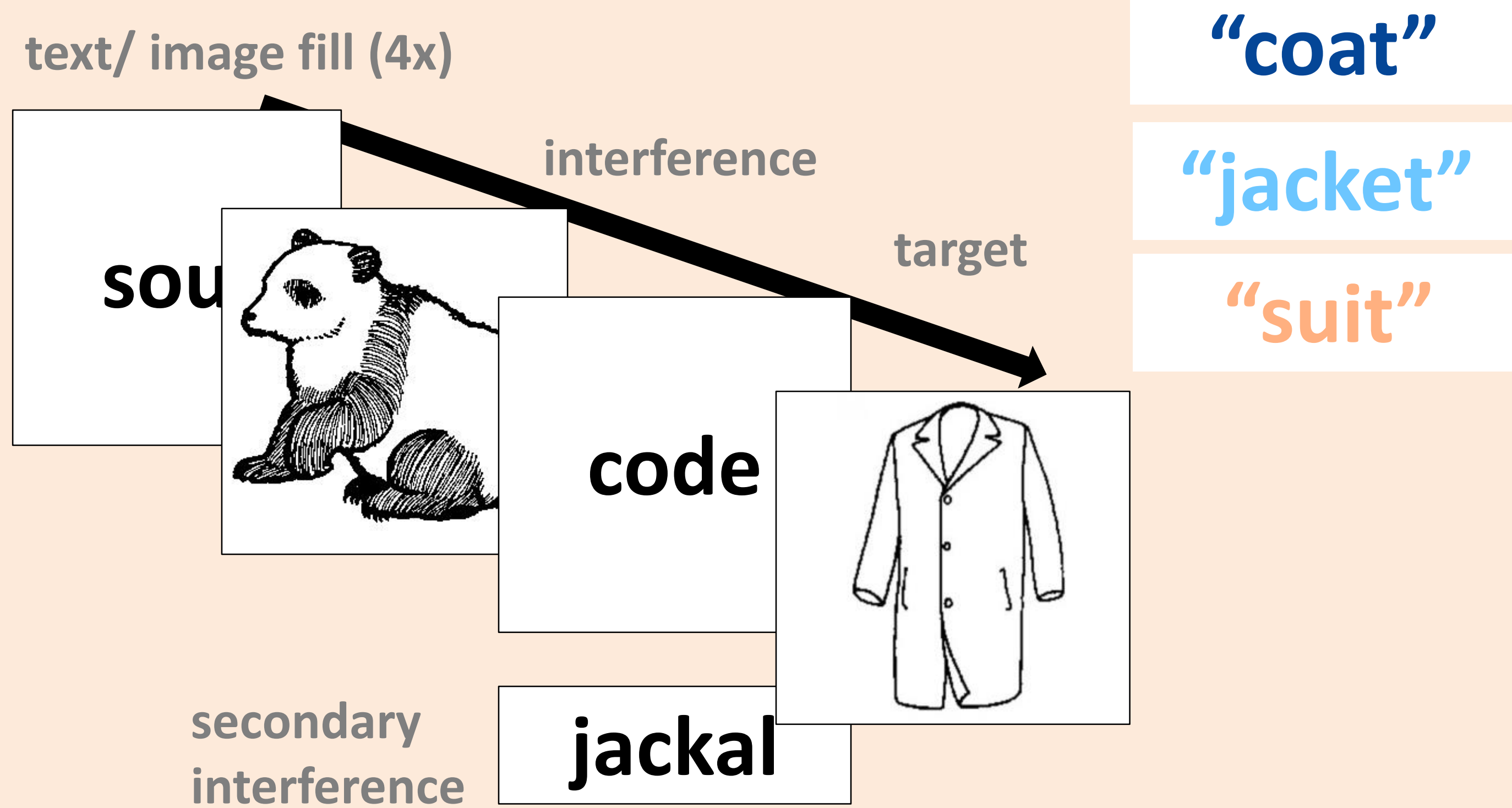
Exp 2: Interference Across Name Agreement

Dominant / No Interference preceded a range of name-agreement pictures



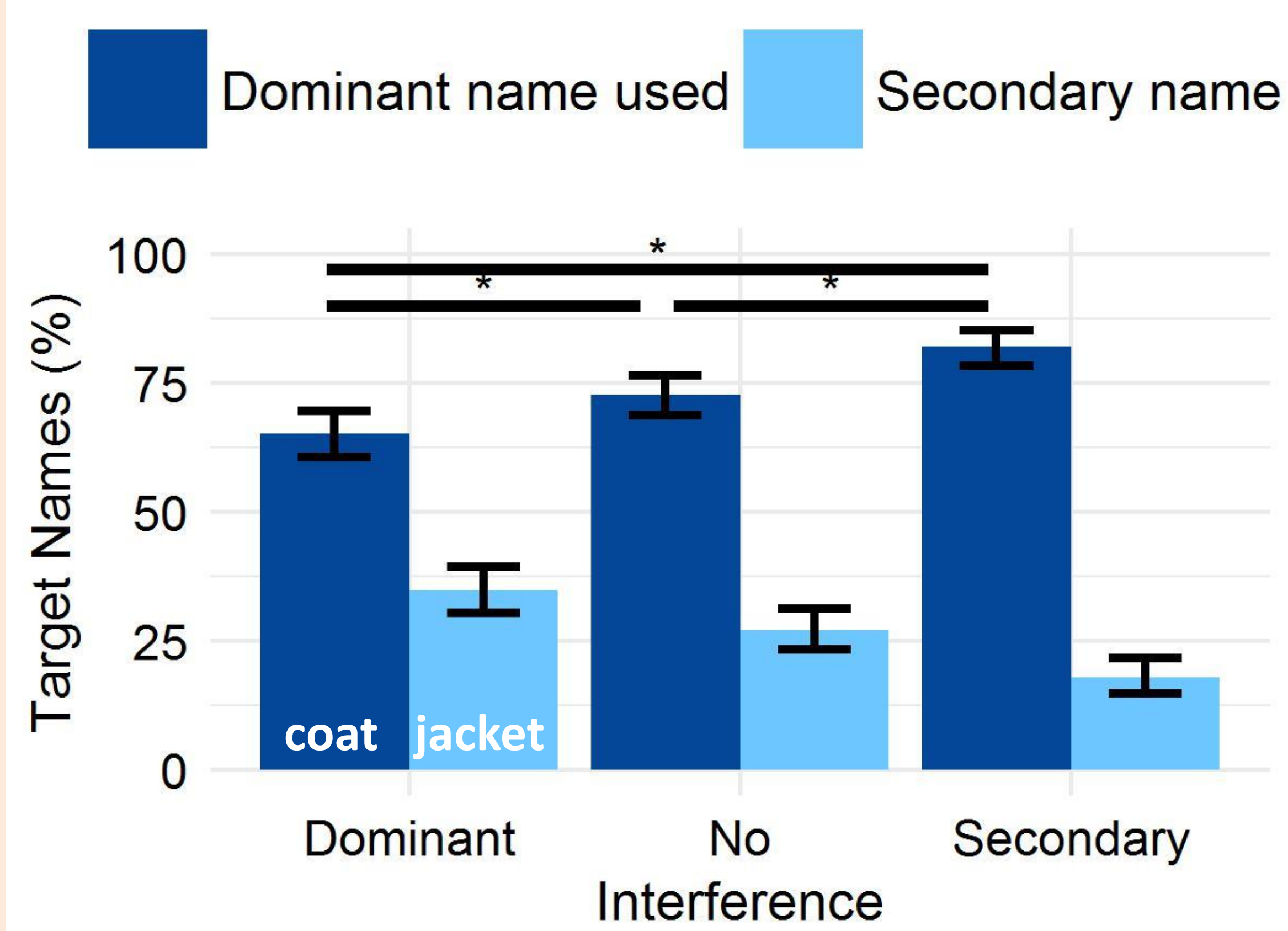
Exp 1: Dominant and Secondary Name Interference

Trial structure. Phonological interference preceded low name-agreement pictures with clear **dominant** and **secondary** names.



Word Choice

Percent of dominant picture names used as a function of interference and name agreement. Points reflect raw means for each picture. The dominant name was used significantly less in the **Dominant** than in the **No Interference** condition ($p < .05$).

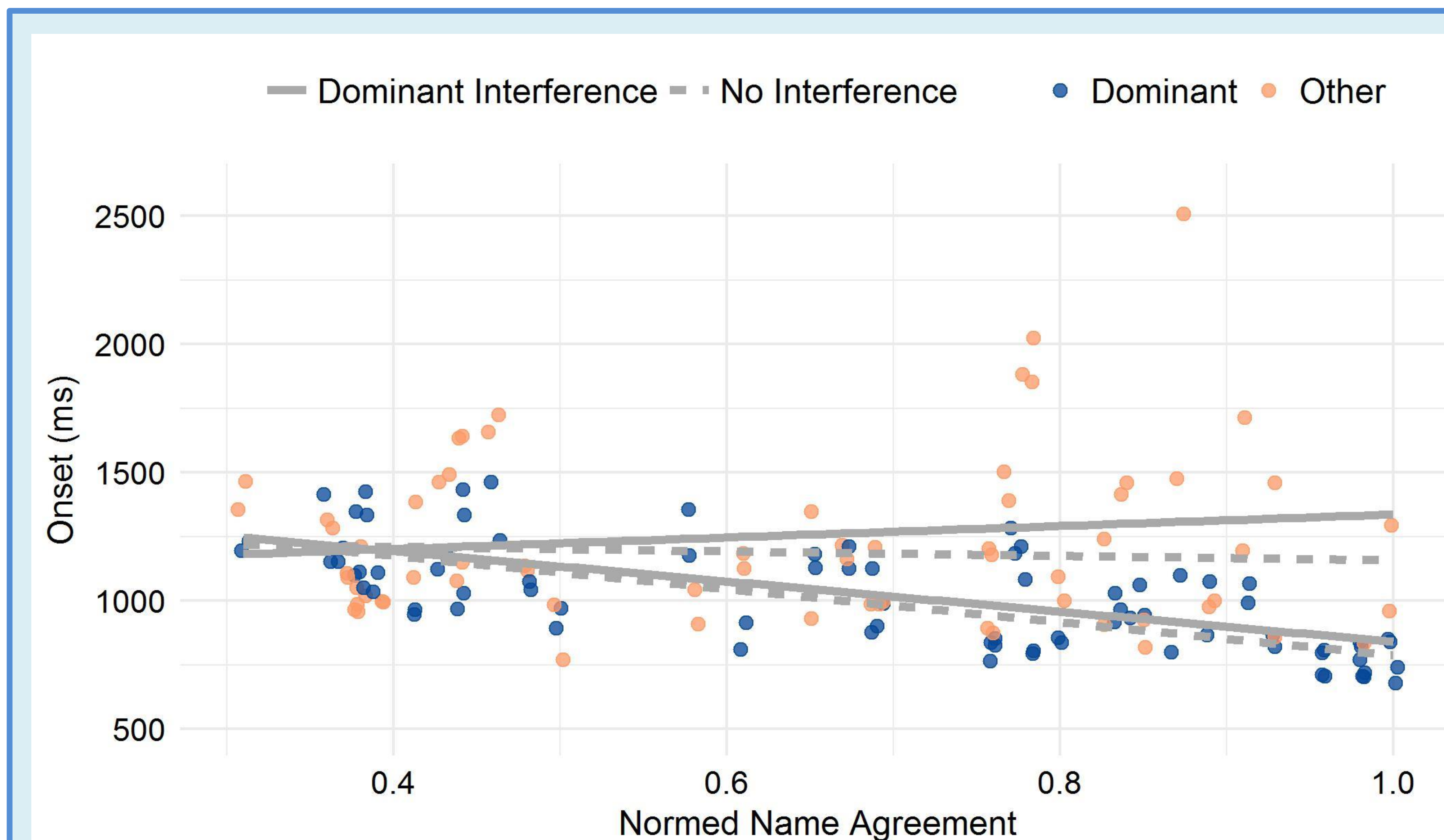


Word Choice

Phonological interference predicts proportion of dominant names produced (all tests, $p < .05$).

Naming Latency

- Dominant names faster, $p < .01$
- Interference and Interaction, ns



Naming Latency

Naming latency for dominant and other words said as a function of no interference or dominant interference. Top solid line is onset latency for Other words said in Dominant interference. Interference, Name agreement, **Dominant vs Other** word said predict latency (all $p < .05$). Interaction of name agreement and word used was also significant, all others ns.

Summary/Conclusions

- Word choice was significantly affected by phonological interference in low-agreement (**Exp1**) and a range of name agreement pictures (**Exp2**).
- Phonological overlap influences latency (**Exp2**).
- **Post-Hoc:** Latency*Interference*Agreement predicts choice (**Exp2**).
- **Accessibility affects online production across single-word messages.**

References

1. Dell, G. S., Schwartz, M. F., Martin, N., Saffran, E. M. & Gagnon, D. A. Lexical Access in Aphasic and Nonaphasic speakers. *Psychol. Rev.* 104, 801–838 (1997).
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4. Rapp, D. N. & Samuel, A. G. A reason to rhyme: Phonological and semantic influences on lexical access. *J. Exp. Psychol. Learn. Mem. Cogn.* 28, 564–571 (2002).
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