

Gradual acceptability contrasts of antecedent-target mismatches under verb phrase ellipsis (VPE)

Does VPE require a syntactically matching antecedent?

- ▶ **Syntactic accounts:** Yes, identical antecedent required
- ▶ **Pragmatic accounts:** No, ellipsis must be resolvable in context
- ▶ **Experimental data (Arregui et al. 2006):**
Gradual acceptability decrease ((1a) > (1b) > (1c) > (1d))

The VP recycling hypothesis (Arregui et al. 2006)

- ▶ VPE without an syntactically identical antecedent is ungrammatical
- ▶ In its absence, hearers reconstruct an antecedent from given material
- ▶ More complex (=effortful) reconstruction → Degraded acceptability
- ⇒ **Mechanism specific to mismatches under (VP) ellipsis**

- (1)
- None of the astronomers saw the comet, ... (Available VP)
 - Seeing the comet was nearly impossible, ... (Embedded VP)
 - The comet was nearly impossible to see, ... (VP with trace)
 - The comet was nearly unseeable, ... (Negative adjective)
- (2) ...but John did. (Arregui et al. 2006)

Information-theoretic account

- ▶ Likelihood (Surprisal) \propto Processing effort (Hale 2001)
- ▶ Speakers reduce predictable expressions (e.g. Levy & Jaeger 2007)
- ▶ Possible difference in likelihood of (2) from (1a) through (1d)
- ⇒ **Unifying account of VPE mismatches and other omissions**

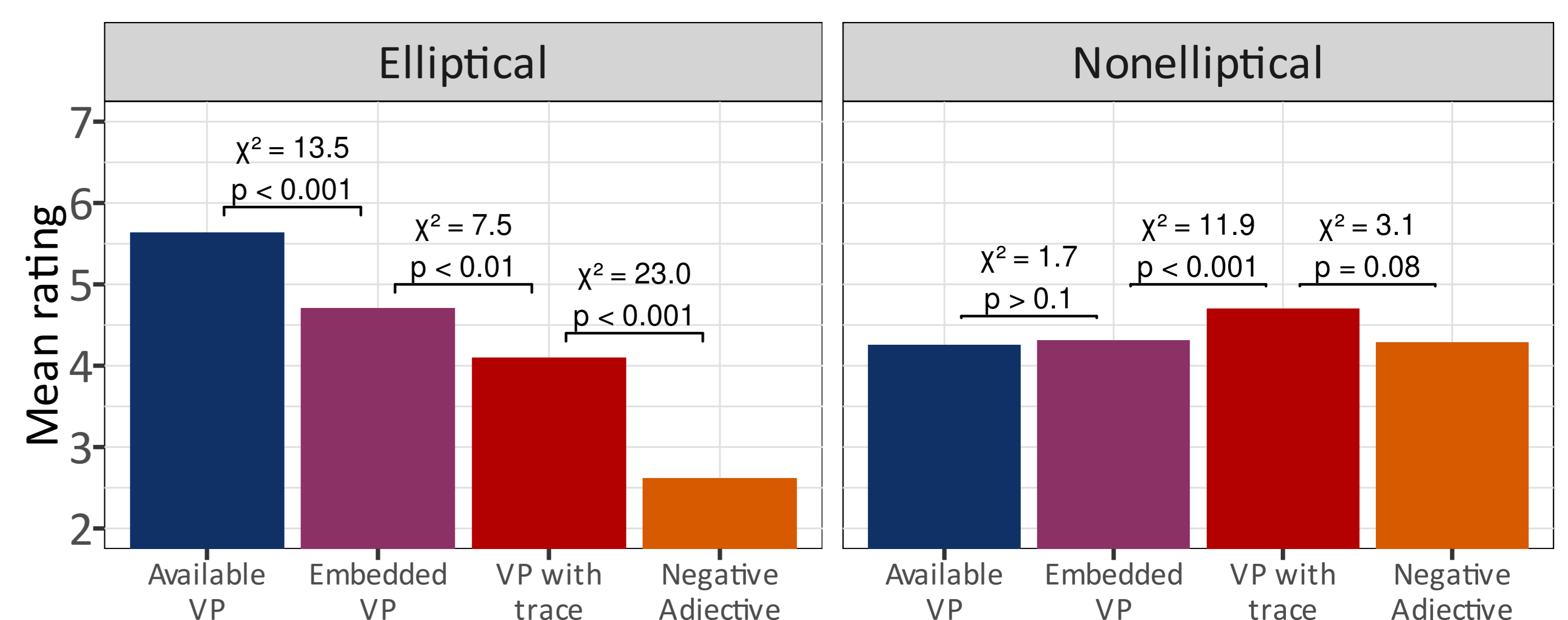
Acceptability rating study: Replicate Arregui et al. (2006), also for nonelliptical sentences

Method

- ▶ 2x4 design (ELLIPSISxCONSTRUCTION)
- ▶ 16 items, 60 fillers, 96 subjects (ELLIPSIS between subjects)
- ▶ Web-based, 7pt Likert scale (7 = fully acceptable)

Analysis with CLMMs (Christensen 2015), forward coding

- ▶ Ellipses only: Gradual effect replicated (all contrasts significant)
- ▶ Complete data set: Significant interactions ELLIPSIS:CONSTRUCTION
- ⇒ **Effect replicated and specific to ellipsis**



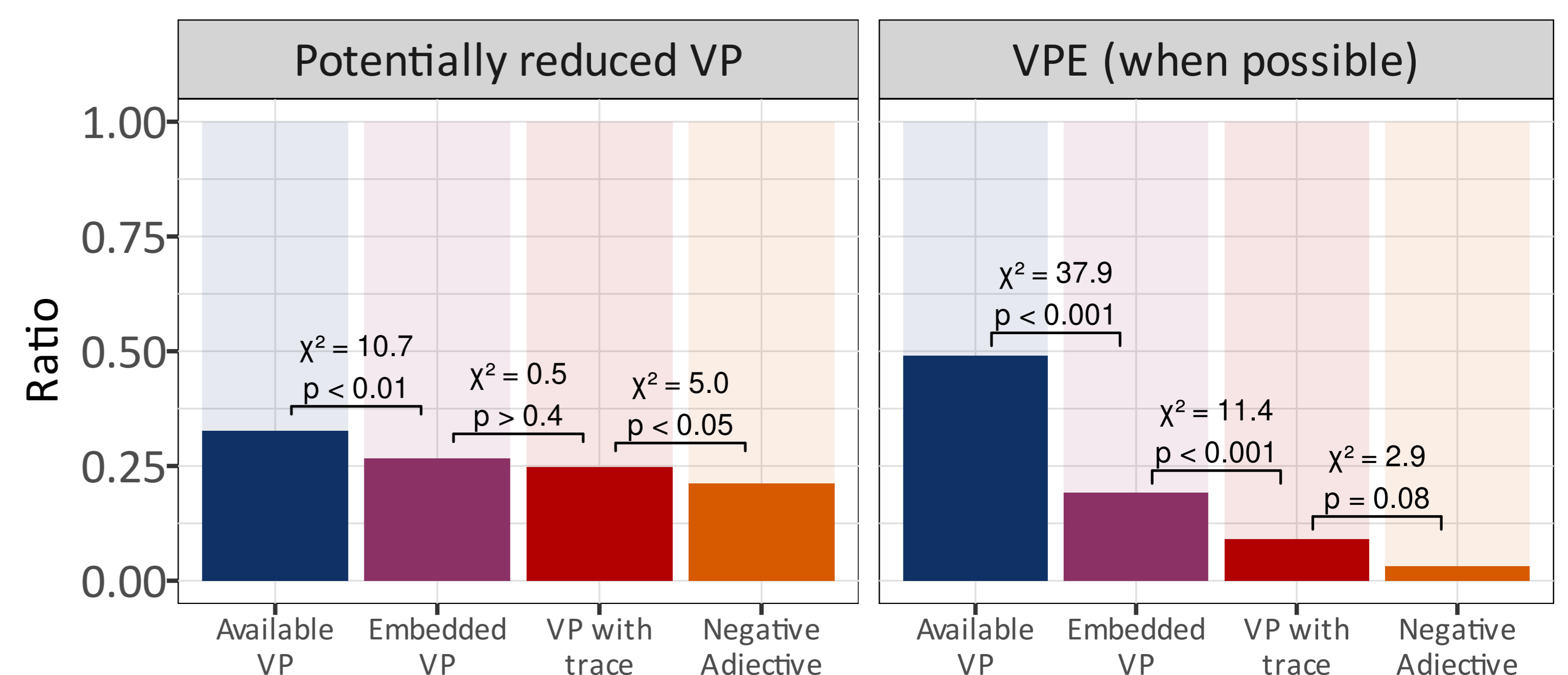
Production study: Are likely 2nd conjuncts more often reduced by VPE?

Method

- ▶ 4 conditions, 120 subjects, 16 items (cut off after *John*), 16 fillers
- ▶ Web-based written production: Provide most natural continuation
- ▶ Is continuation identical to possibly reduced VP?
- ▶ If so, has it been actually been reduced by VPE?

Analysis with generalized linear mixed models (lme4, R)

- ▶ More parallel continuations when VPE is more acceptable
- ▶ Similar effect for ratio of VPE among these parallel continuations
- ⇒ **Stronger preference for VPE when the target is predictable**



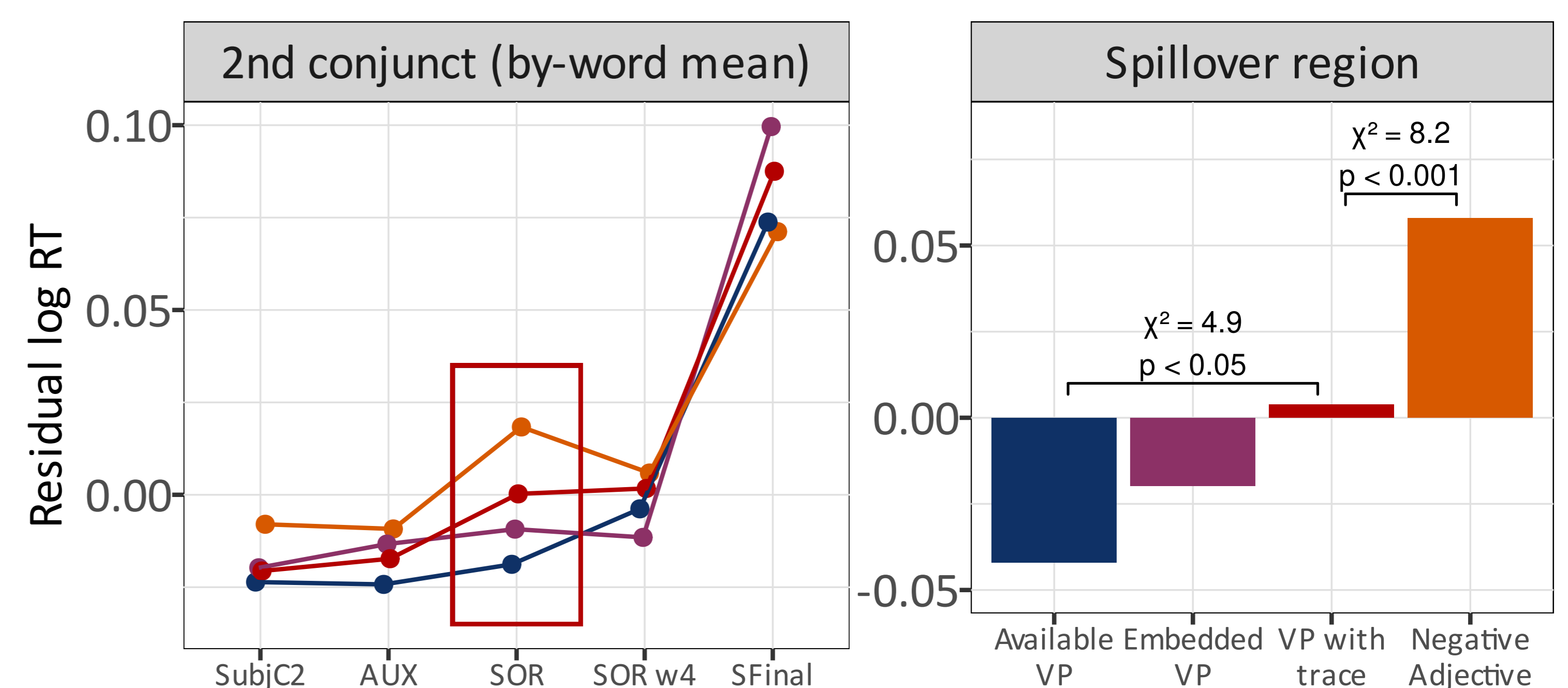
Self-paced reading study: How difficult is the processing of VPE?

Method

- ▶ 4 conditions (ellipses), 48 subjects, 16 items, 60 fillers
- ▶ Web-based word-by-word presentation, centered, PCIBEX
- ▶ 16 comprehension questions following fillers
- ▶ DVs: residual log reading times on auxiliary / spill-over region (SOR)

Analysis with linear mixed models (lme4, R)

- ▶ No significant differences in reading times on auxiliary
- ▶ Gradual differences in spillover region (causal/temporal clause)
- ⇒ **Processing VPE is easier when the target VP is likely**



Discussion

Summary of experimental findings

- ▶ Gradual acceptability pattern by (Arregui et al. 2006) replicated
- ▶ Higher acceptability of VPE when the target is likely
- ▶ Stronger production preference for VPE when the target is likely
- ▶ VPE is processed faster when the target is likely

Interpretation

- ▶ Reading time data are compatible with recycling hypothesis
- ▶ Speakers produce VPE across all conditions in (1)
- ▶ Predictability effects support information-theoretic account
- ⇒ **Unifying account of the distribution of omission phenomena**