

Testing the JANUS model: The role of focus in noun phrase anaphor resolution

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The JANUS model (Garnham & Cowles, 2008)

- ▶ Anaphors have structurally defined default antecedents
 - ▶ e.g. a referent that is (linguistically) focused
- ▶ As such, effects of semantic relations (e.g. Almor, 1999; Cowles & Garnham, 2005) should occur later
 - ▶ after the initial mapping to the default antecedent
- ▶ “Overspecific” anaphora (e.g. a repeated name) may have a functional justification
 - ▶ e.g., if a less specific form would be ambiguous

Experiment 1: Predictions

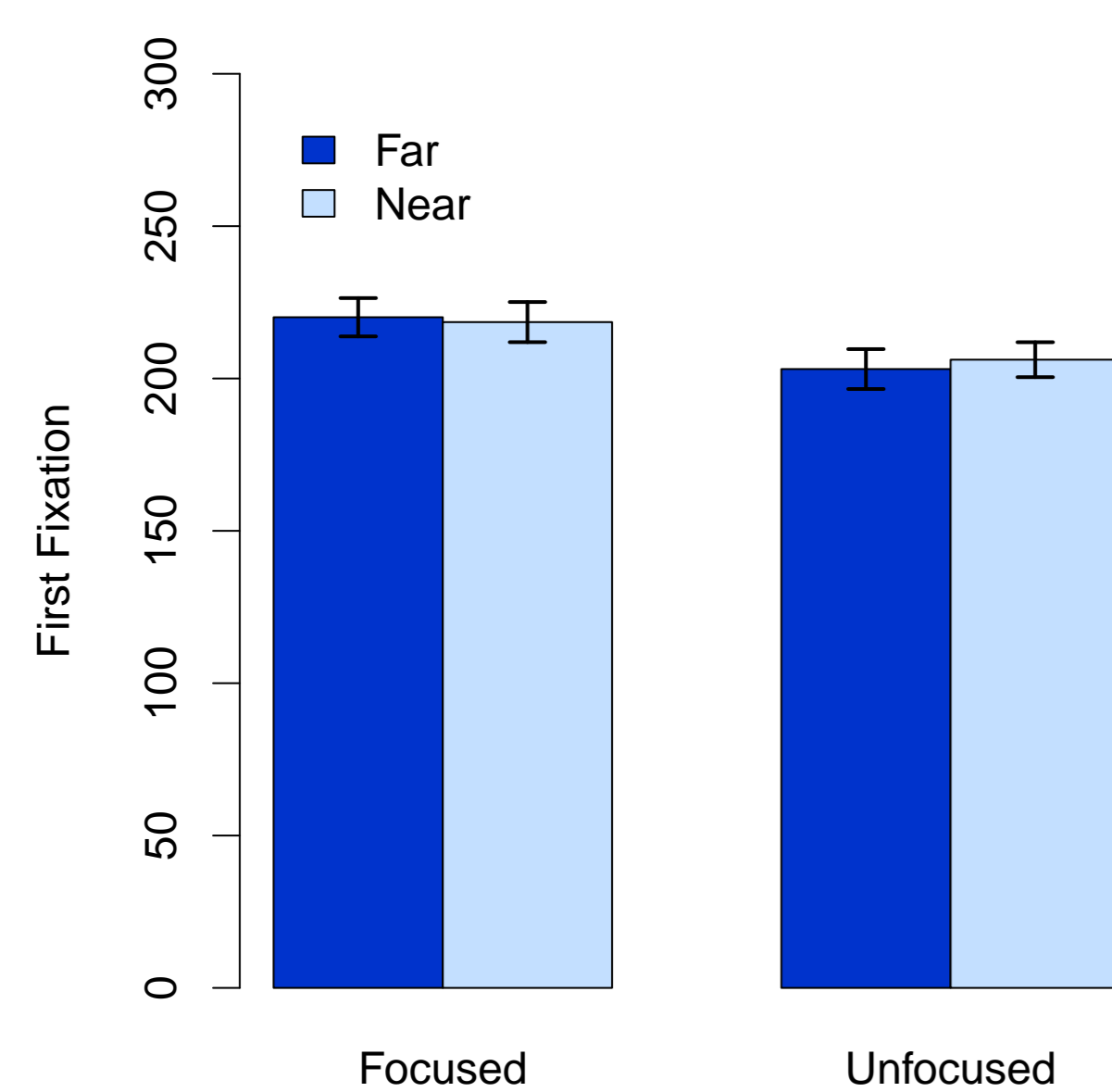
- ▶ An early focus effect
 - ▶ Focused easier than unfocused
- ▶ A late inverse distance effect
 - ▶ When antecedent is focused, far should be easier than near

Experiment 1: Design

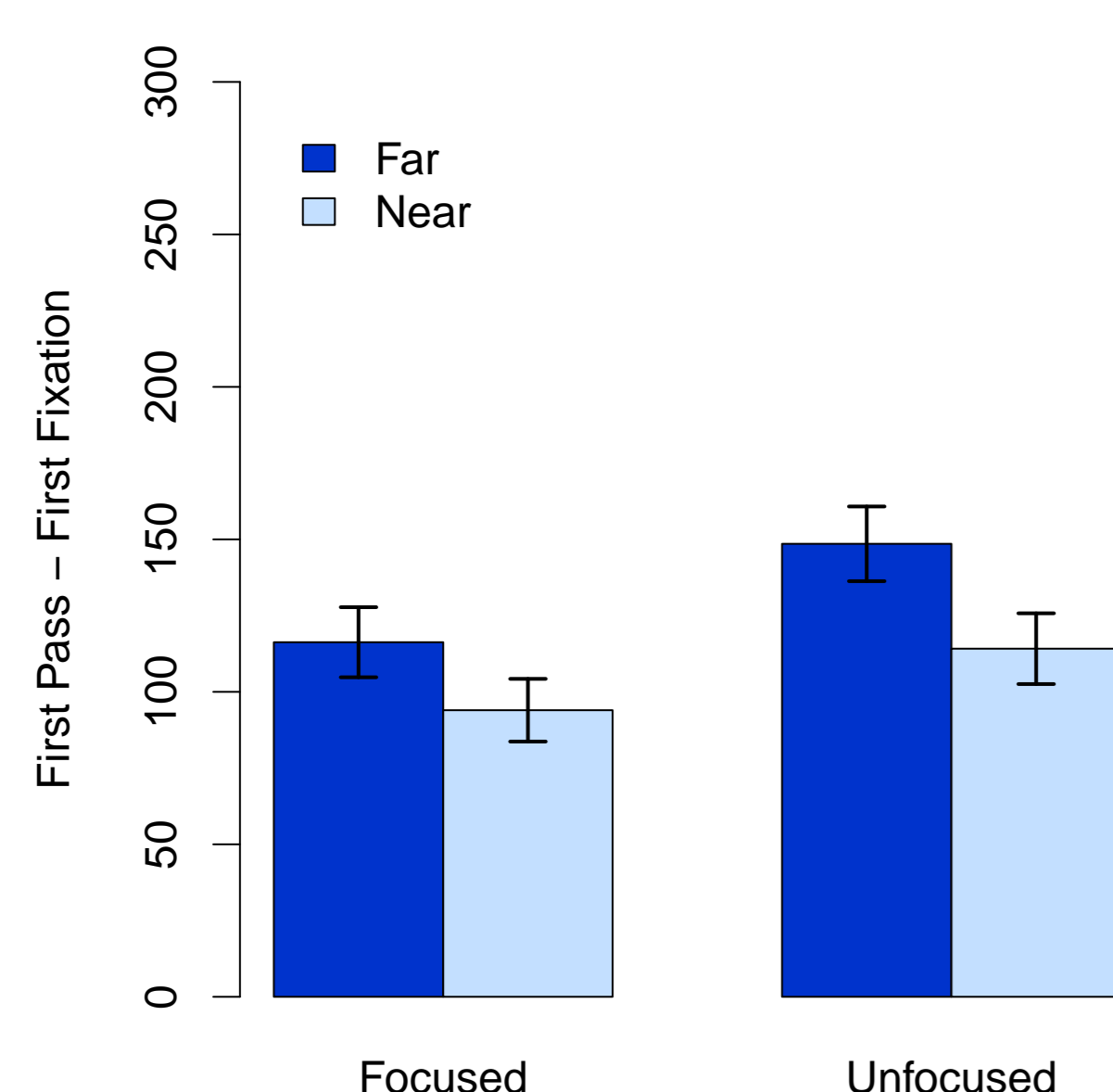
Focus × Distance; 32 participants; 24 items

- 1a. What the bartender threw out was the chardonnay/wine.
- 1b. It was the bartender that threw out the chardonnay/wine.
2. The alcohol had gone sour after being left out too long.

Experiment 1: Results – Anaphor region

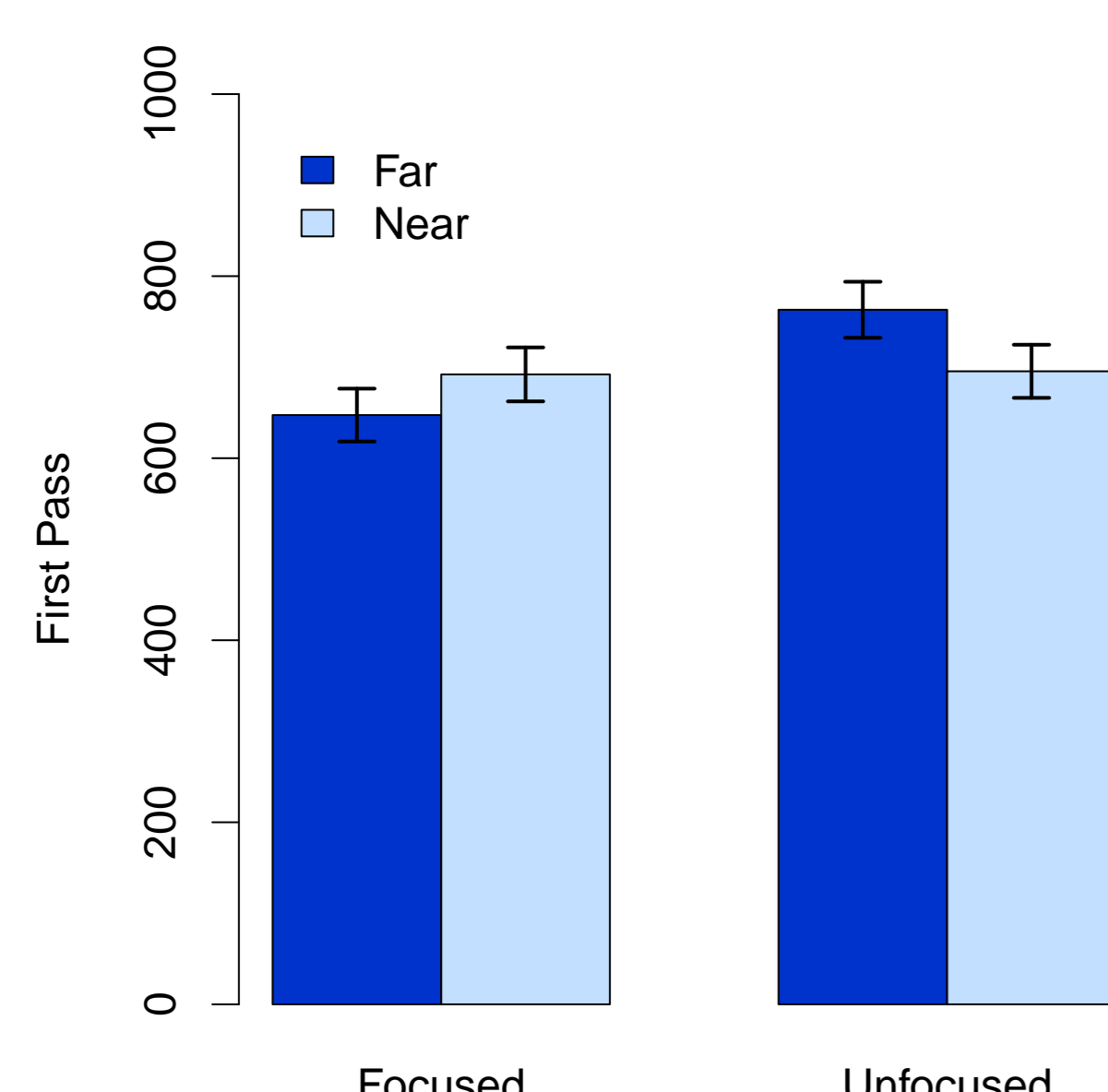


- ▶ Main effect of focus in first fixation
- ▶ Unexpectedly, focus led to longer durations
 - ▶ Perhaps a spillover effect of cleft difficulty
 - ▶ First pass and total reading times longer for wh-cleft (focused) than it-cleft (unfocused)



- ▶ When this effect was “removed” the direction of the focus effect reversed
- ▶ Also, a standard distance effect
 - ▶ Near easier than far

Experiment 1: Results – Post-anaphor region



- ▶ Faster when antecedent was focused
- ▶ Interaction between focus and distance
 - ▶ Inverse distance effect

Experiment 2: Predictions

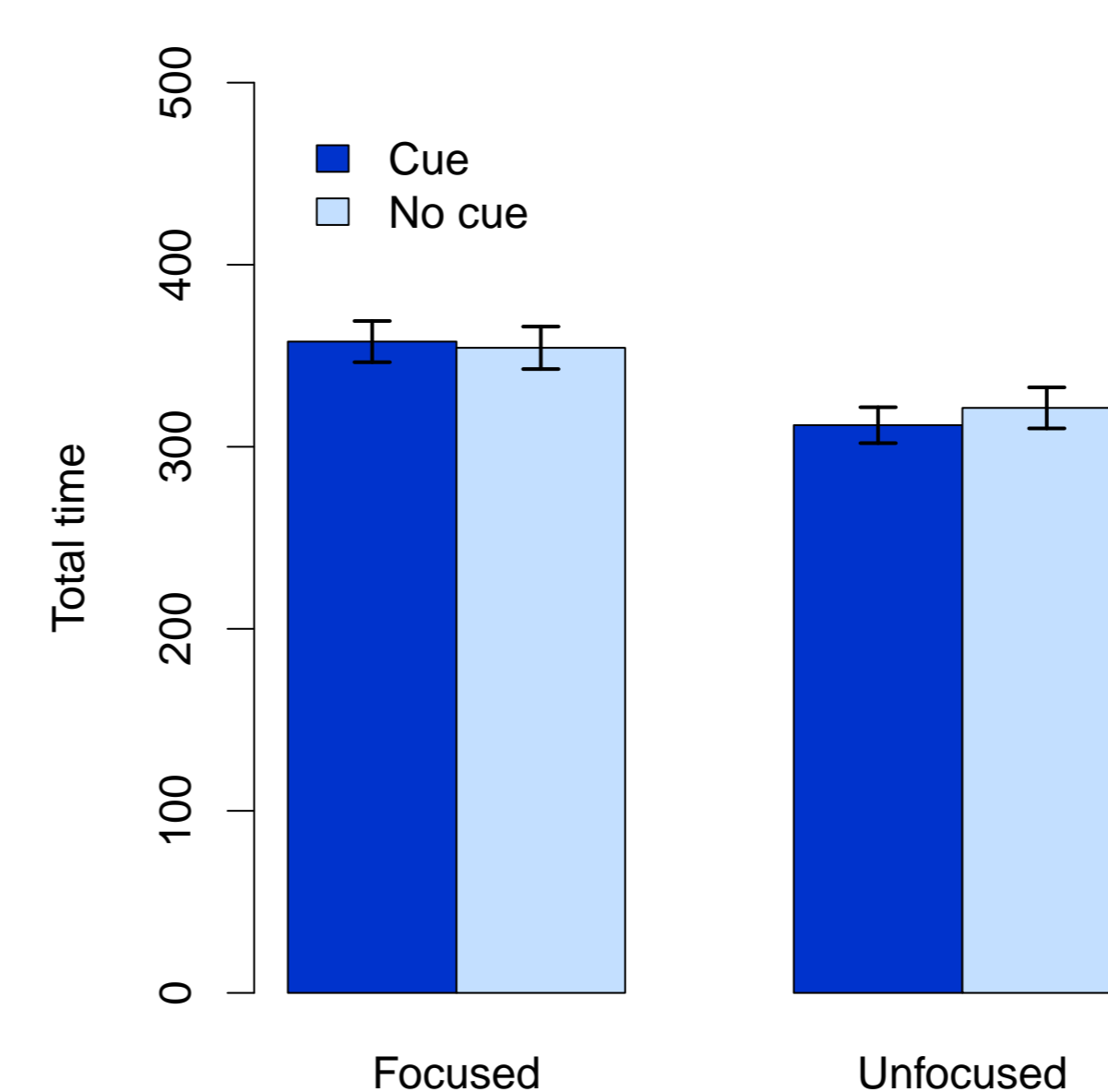
- ▶ Effects of focus
 - ▶ Focused harder than unfocused (i.e. the repeated name penalty; RNP)
- ▶ Focus effects should be moderated by the gender cue
 - ▶ For unfocused antecedents, repeated name penalty should increase when repeated name is not justified (i.e. when there is a gender cue)

Experiment 2: Design

Focus × Gender cue; 32 participants; 32 items

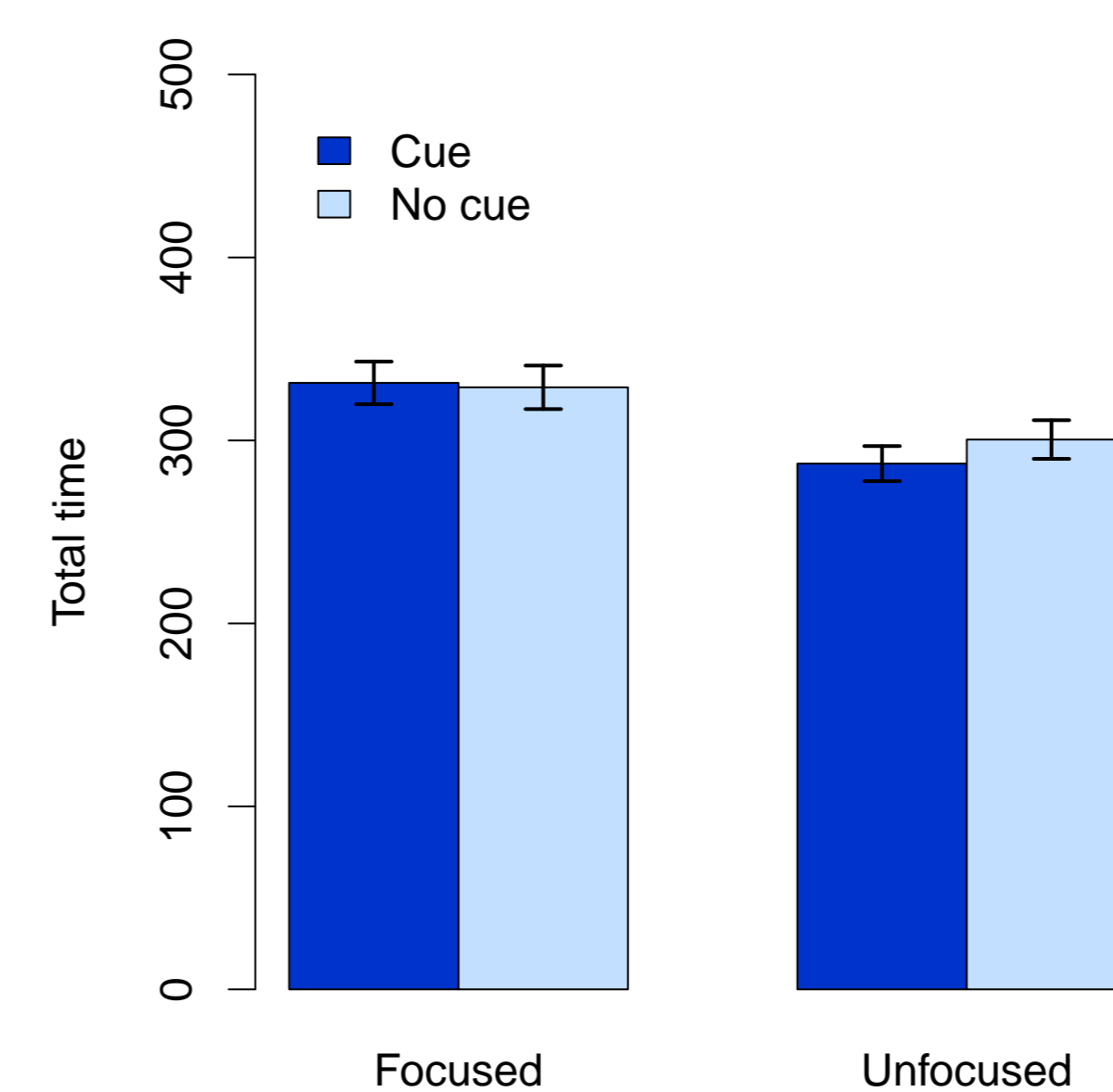
- 3a. Rory was praised by Hannah/Roger.
- 3b. Hannah/Roger praised Rory after the show.
4. Rory would surely win awards for the performance.

Experiment 2: Results – Anaphor region



- ▶ Main effect of focus in total reading time
 - ▶ Focused item took longer to read
- ▶ No effects of gender cue

Experiment 2: Results – Spillover region



- ▶ Similar effects of focus in first fixation, regression path and total time
 - ▶ Also in final region
- ▶ No effects of gender cue

General Conclusions

Results of Experiment 1 were consistent with JANUS:

- ▶ Focus had a facilitatory effect both early and late
 - ▶ Easier to resolve anaphor when the antecedent appeared in the default position
- ▶ Inverse distance effect occurred later (cf. Van Gompel et al., 2004)
 - ▶ Also an early distance effect
 - ▶ Relatedness may aid identification

Less consistent, however, were the results of Experiment 2:

- ▶ Effects of focus
 - ▶ Consistent with the RNP
- ▶ However, no effects of gender cue
 - ▶ RNP for unfocused antecedent did not increase when the repeated name was not justified

Future research

- ▶ Lack of gender effects in experiment 2 may be due to disambiguating predicate in second sentence
 - ▶ Participants may have learnt that repeated name was always overspecific
 - ▶ Given the predicate, a pronoun would suffice
- ▶ Follow-up study is planned where this possibility is reduced