

# Discourse Foregrounding Ameliorates Manner-of-Speaking Islands



### Dingyi (Penny) Pan, Jiayi Lu, Judith Degen

{dpan3, jiayi.lu, jdegen}@stanford.edu, Stanford University

# Background

Wh-questions formed by extracting the embedded constituent of a manner of speaking (MoS) verb exhibit degraded acceptability.

E.g., \*Whoi did John whisper [that Mary met with ti]?

#### Three accounts for MoS Island Effect

- **Subjacency**: Complements of MoS verbs are complex-NPs rather than CPs, which restrict extraction following the subjacency condition. [1]
- Verb-frame frequency: MoS verbs rarely take complement clauses. [2,3]
- Backgroundedness: Constituents contained inside the complements of MoS verbs are discourse backgrounded and thus resist movement which requires the fronted element to be foregrounded. [4-6]
  - Previous findings: the magnitude of the MoS Island Effect correlates with the backgroundedness of the embedded constituents, as measured by a separate negation test on the matrix clause.

#### Question

Does altering the discourse backgroundedness of the extracted constituent change the MoS Island Effect?

#### **Predictions**

- Subjacency and Verb-frame frequency account: Whquestions that involve extraction of the embedded constituents of a MoS verb are degraded, regardless of the discourse
- Backgroundedness: sentences are more acceptable if the embedded constituent is foregrounded in the discourse.

## Experiment

#### **Participants**

96 native English speakers were recruited on Prolific.

#### Conditions (12 MoS verbs, 24 fillers)

Verb Focus condition

Hanako said: John didn't **WHISPER** that Mary met with the lawyer.

Scott said: Then who did John whisper that Mary met with?

Embedded Focus condition

Hanako said: John didn't whisper that Mary met with the LAWYER.

Scott said: Then who did John whisper that Mary met with?

#### **Tasks**

Backgroundedness (two-alternative forced choice)

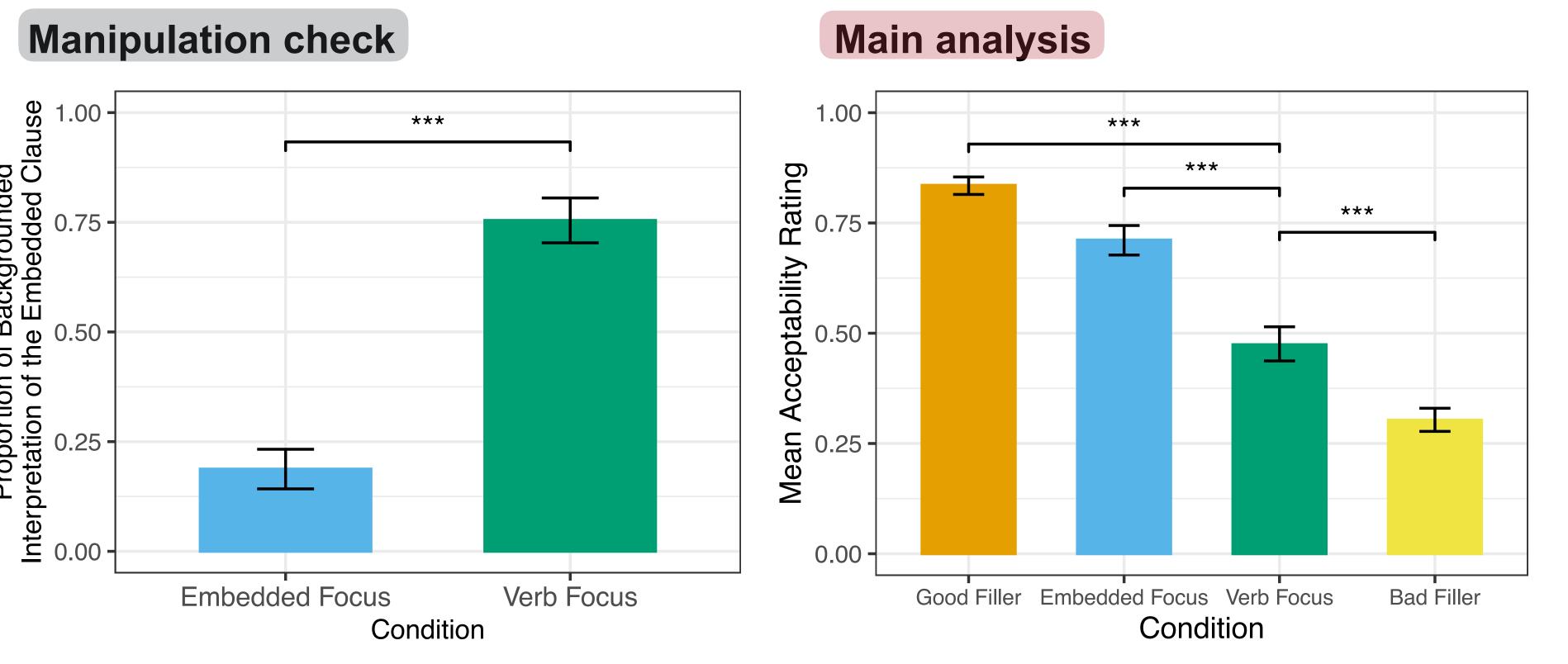
What was <u>Hanako</u> talking about?

- a. Who Mary met with, according to John.
- b. The way John said that Mary met with the lawyer.

### Acceptability (rating on a slider)

How natural/acceptable does Scott's question sound?

### Results



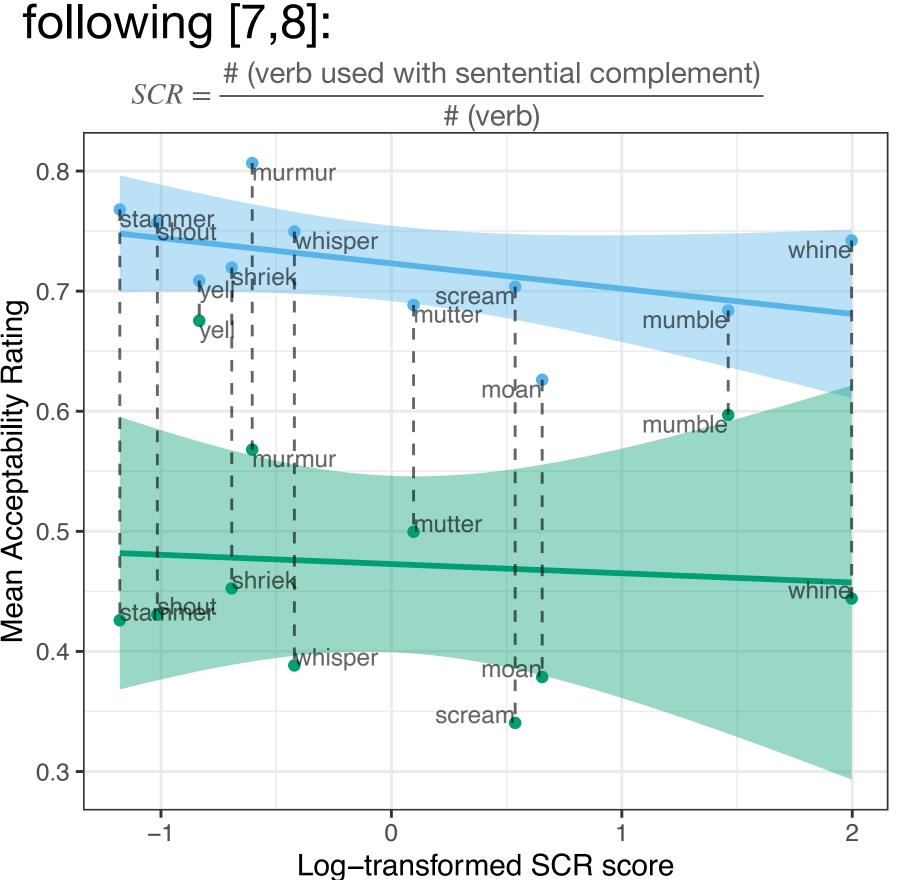
(Left) The embedded object was more backgrounded in the *Verb Focus* condition than in the *Embedded Focus* condition ( $\beta$ =-2.49, SE=0.41, p<0.001).

(Right) Sentence acceptability was higher in the *Embedded* Focus condition than in the *Verb Focus* condition ( $\beta$ =0.24, SE=0.034, t=6.94).

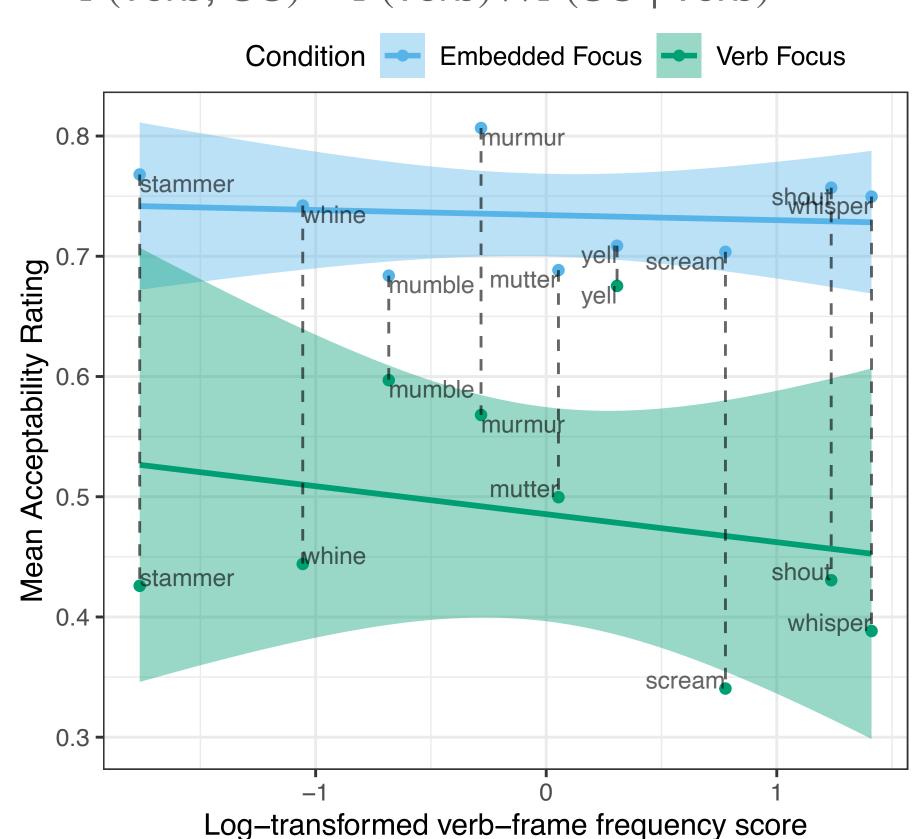
The manipulation succeeded and foregrounding the embedded object attenuates the MoS Island effect.

### **Exploratory analyses: verb-frame frequency**

Sentential Complement Ratio (SCR),



Verb-frame frequency, following [2,3]:  $P(\text{verb}, SC) = P(\text{verb}) \times P(SC \mid \text{verb})$ 



(Left: SCR) No significant effect of verb-frame frequency ( $\beta$ =-0.017, SE=0.014, t=-1.24) nor an interaction between frequency and focus condition ( $\beta$ =0.009, SE=0.011, t=0.82).

(Right: verb-frame frequency) No significant effect of verb-frame frequency ( $\beta$ =-0.002, SE=0.016, t=-0.13) nor an interaction between frequency and focus condition ( $\beta$ =-0.003, SE=0.013, t=-0.21).

With either measure, there was no significant effect of verb-frame frequency or an interaction between frequency and focus condition, suggesting verb-frame frequency doesn't predict MoS islands effect.

### Discussion

- Foregrounding the embedded constituent ameliorates the degradedness of extracting that constituent from an MoS island, further supporting the **Backgroundedness** account.
- The difference in acceptability ratings between the two conditions cannot be explained by either the subjacency or the verb-frame frequency account.

### References

[1] Snyder (1992). [2,3] Liu, Ryskin, Futrell & Gibson (2019; 2022). [4] Erteschik-Shir (1973). [5] Ambridge & Goldberg (2008). [6] Goldberg (2013). [7] Kothari (2008). [8] Richter & Chaves (2020)

### Resources

Experiment, data: <a href="https://github.com/pennydy/">https://github.com/pennydy/</a> MOS Island

Preregistration: <a href="https://osf.io/rsza5">https://osf.io/rsza5</a>