

"Umm": When children do and do not use speech disfluencies to infer knowledge



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How do we infer *how much* someone knows?

- By four, children use prior language *accuracy* to infer knowledge (e.g., Koenig & Harris, 2005).
- Adults use speech disfluencies (e.g., "um") to infer knowledge (Brennan & Williams, 1995).
- **Speech disfluencies** may be a powerful cue for children to infer knowledgeability:
 - Available in-the-moment
 - Prevalent (Shriberg, 1996; Casillas, 2014)
 - Signal planning difficulty (Clark & Fox Tree, 2002)
 - Toddlers can track "um" (Kidd et al., 2011)

How do kids use disfluencies to infer knowledge?

Study 1: Knowledge

- Children infer that an accurate, but disfluent speaker is less knowledgeable.

Study 2: Ignorance

- Children may block this inference for non-answers (e.g., "I don't know").

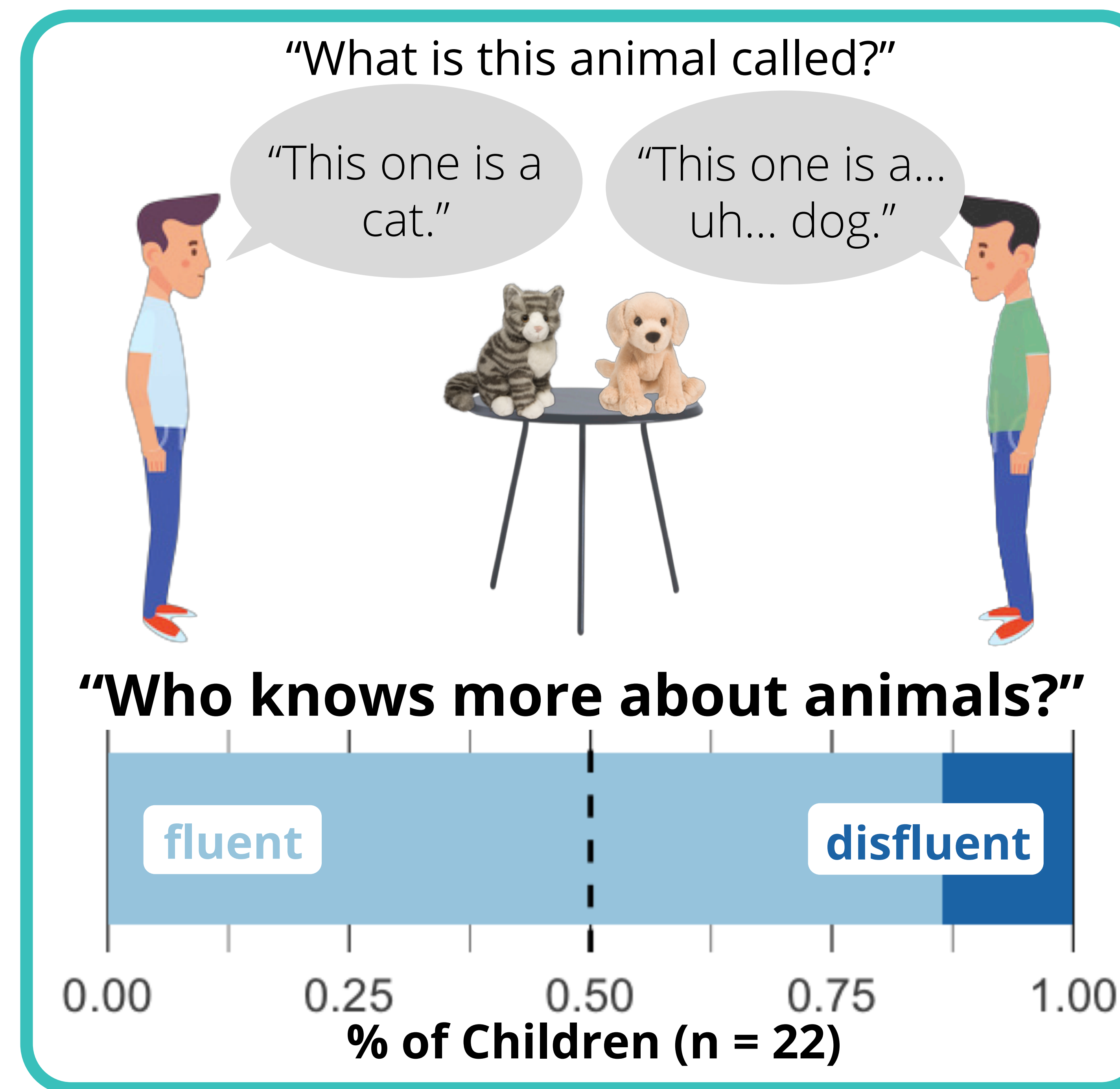
Study 3: Replication (Knowledge + Ignorance)

- Ongoing preregistered replication (planned n = 120) to examine developmental changes.

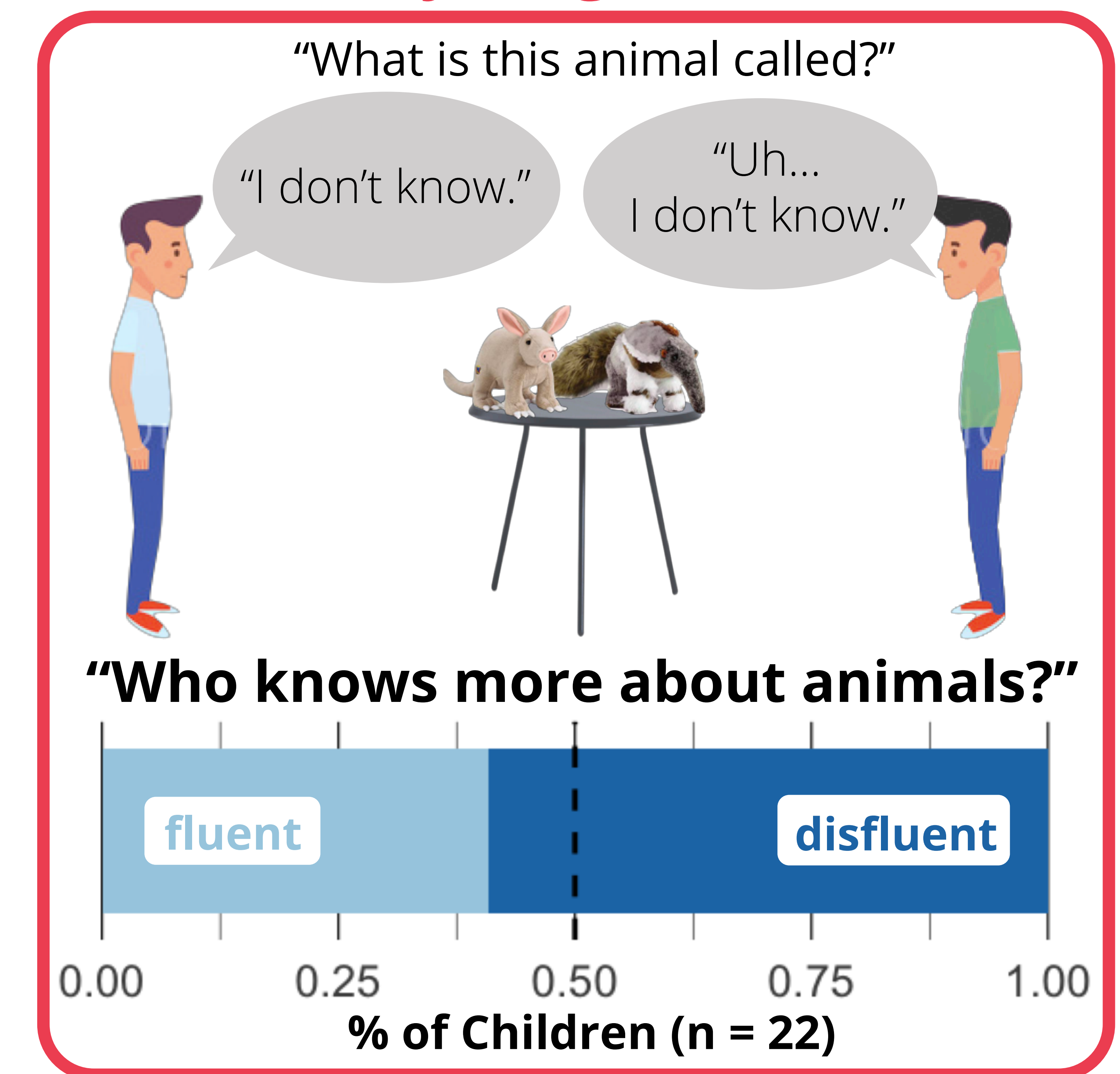
Discussion:

- Children make use of accuracy-irrelevant information to infer knowledge (e.g., syntax, Corriveau et al., 2016).
- More broadly, children use *hesitation* as a cue to make social inferences.
- Future directions examine the scope of this inference and possible exceptions.

Study 1: Knowledge

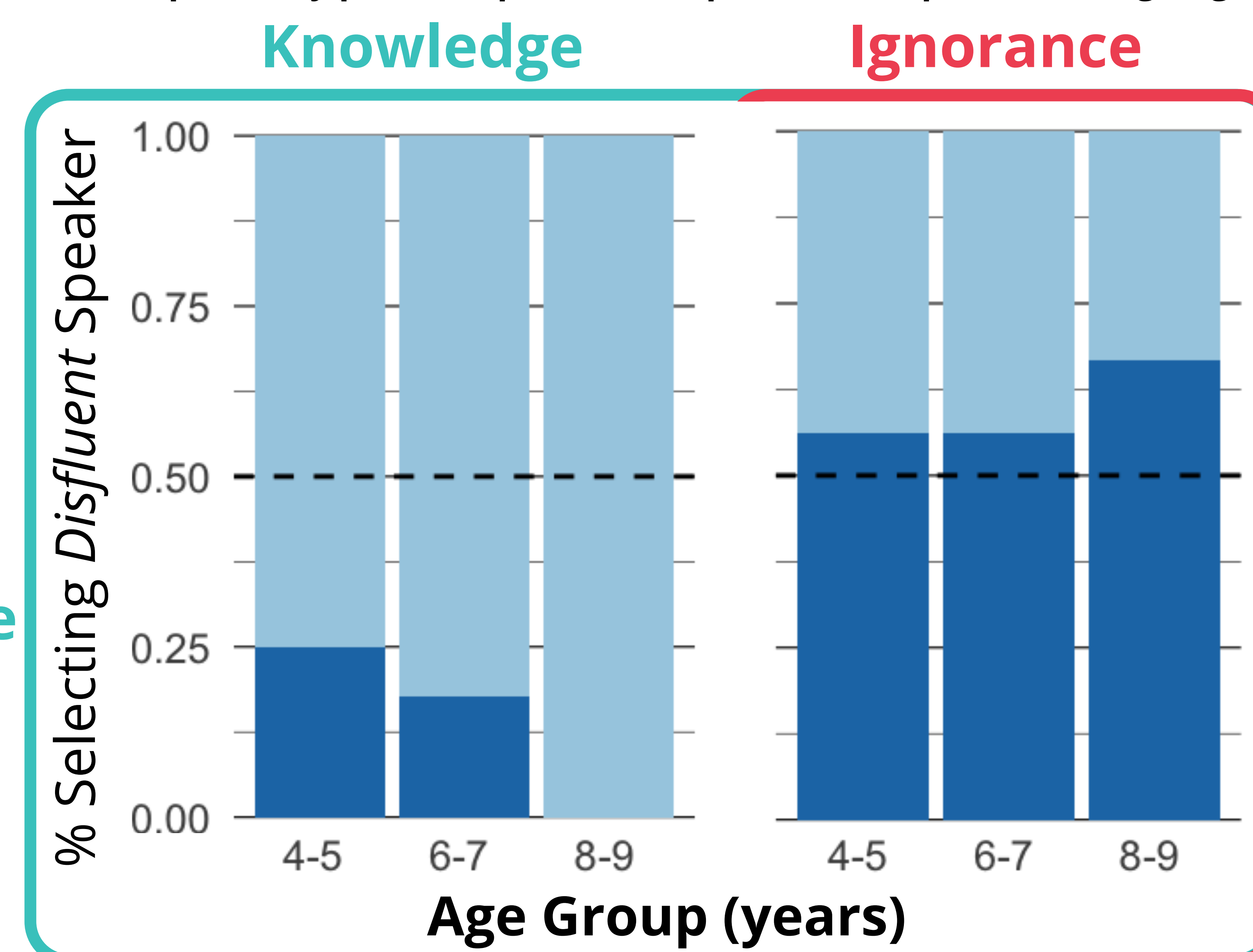


Study 2: Ignorance



Study 3: Preregistered Replication, by age*

exploratory plot collapsed across pilots and replication (ongoing) (n = 79)



If a speaker is correct:
disfluency = less competence

If a speaker is ignorant:
disfluency ≠ less competence