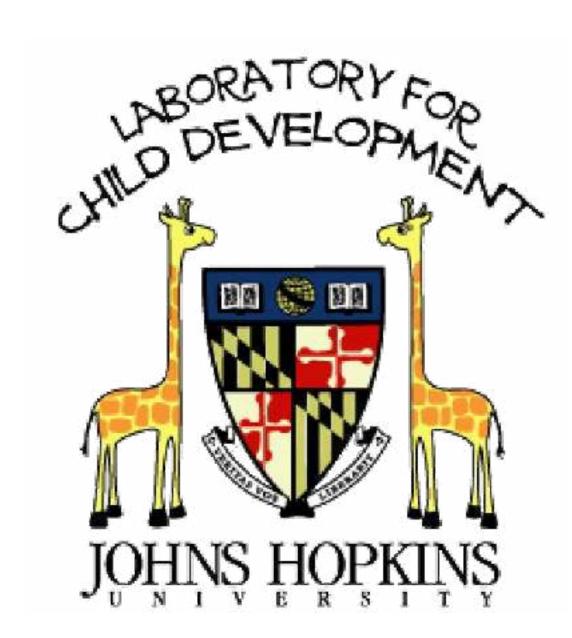


Children's representations of coincidences



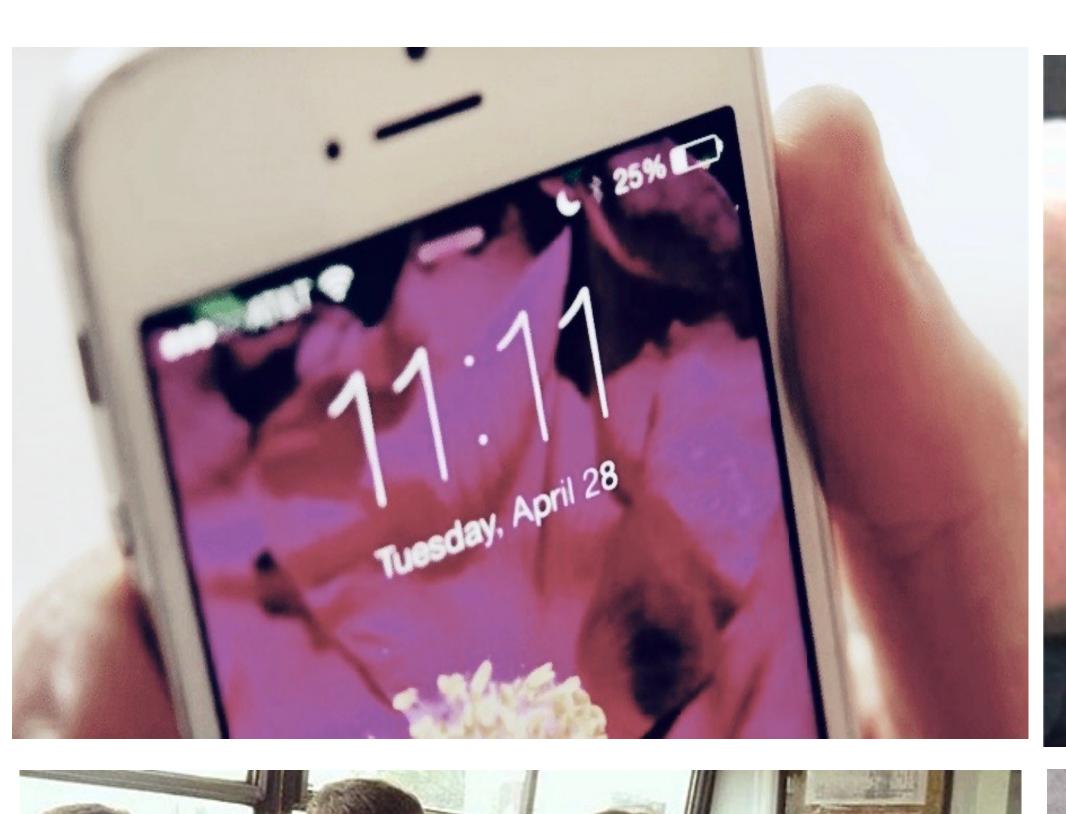
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Background

Research Questions:

Q1: Can children represent coincidences?

Q2: What factors influence children's reasoning about what count as coincidences?









- Coincidences grab our attention, seem worthy of conveying to others, and make us puzzle about whether they hold some deeper meanings.
- Past research suggests that adults reason about coincidences by evaluating the likelihood and prior probability of competing hypotheses (Griffiths & Tenenbaum, 2007).
- However, to date, the development of coincidence representations remains entirely unstudied.

Methods & Design

- Does the availability of an explanation for co-occurring events change people's coincidence judgments?
- Does the number of co-occurring events affect people's coincidence judgments?

Example stories

Without Explanation

One weekend Avery and his family went to the park with their pet bulldog to have a picnic and enjoy the beautiful summer weather.



As they headed towards their favorite picnic spot, Avery passed a few people, and one of them also had a bulldog.



Later, Avery saw even more people in the park, and one/two/afew/all of them also had a bulldog.





As they headed towards their favorite picnic spot, Avery passed a few people, and one of them also had a bulldog.



Later, Avery saw even more people in the park, and one/two/afew/all of them also had a bulldog.

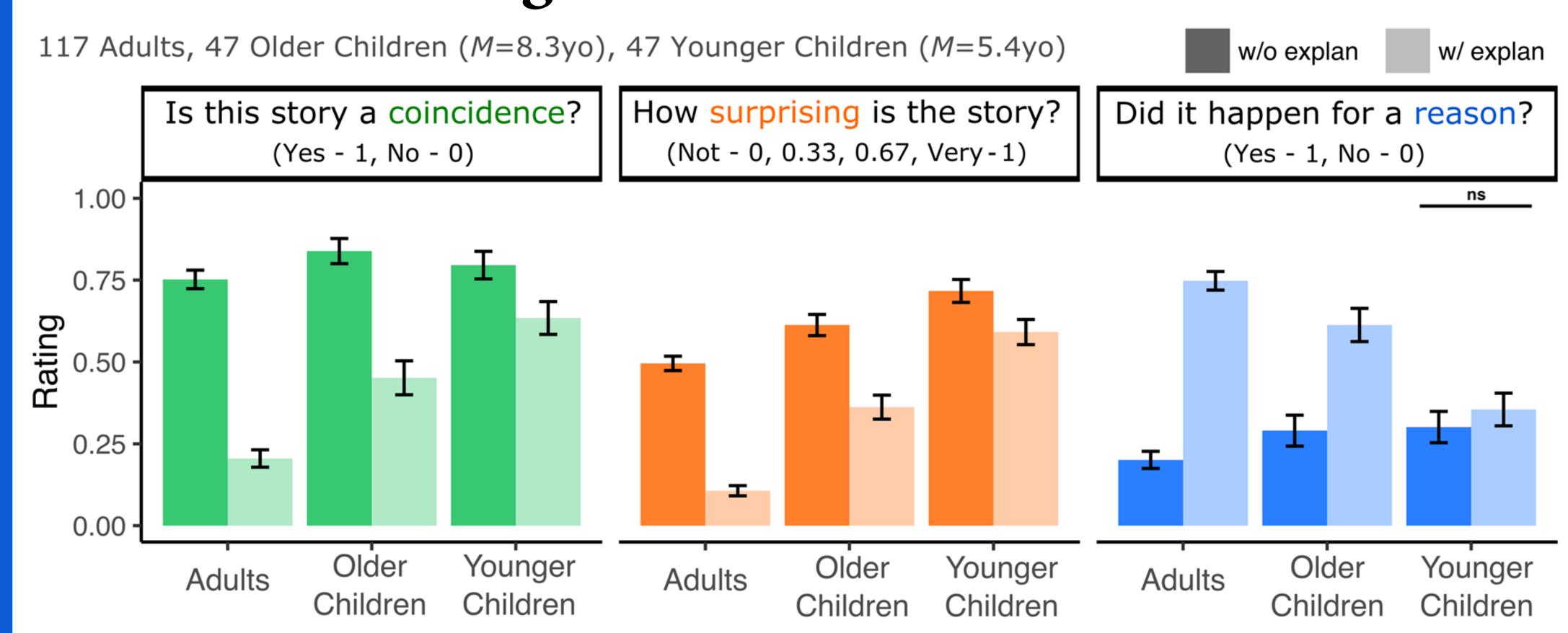
Questions for each story

Coincidence: Was what happened in the story a coincidence?

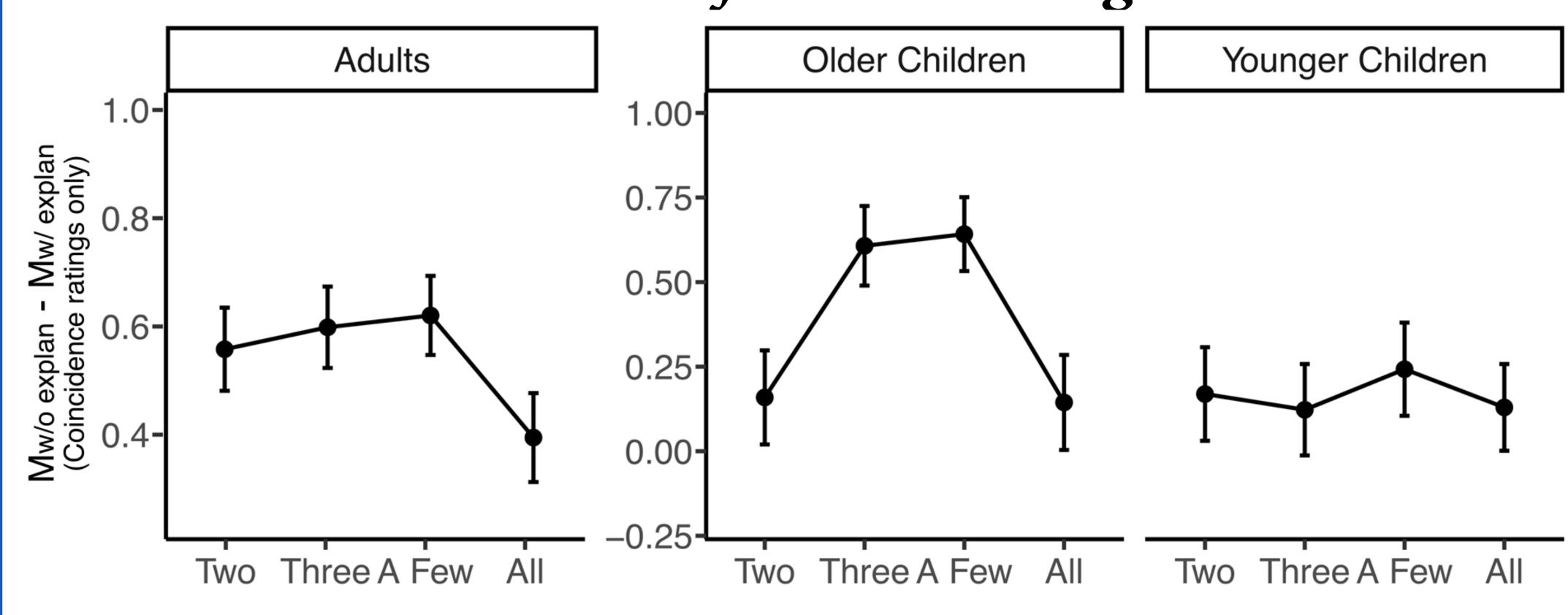
Surprise: How surprising do you find the story is? Reason: Is there a reason for what happened?

Results

Adults and children rely on explanations to decide whether something is a coincidence or not.



Adults and older children's coincidence judgments are sensitive to the number of co-occcurring events.



Conclusions

- 1. Even young children showed the ability to represent coincidences. Like adults, they recognized that coincidences involve multiple events that lack an explanation for their cooccurrences.
- 2. More fine-grained adult-like representations of coincidences, including sensitivity to the number of coocurrences, only emerge in older children.