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INTRODUCTION

- Studies show picture book reading helps learning.
- We know a lot about how the linguistic world of picture books might help learning.
- The goal of this study is to analyze aspects of the visual world of picture books that have been implicated in early word learning.
- We analyze the visual world of picture books through two well-established methods of studying the role of the visual-referential world of child-directed speech.
  I. Word-reference co-presence
  II. The Human Simulation Paradigm

Research Objectives:
- To investigate the nature of visual referential transparency:
  I. In picture books targeting younger and older children across two methods
  II. For words varying in age-of-acquisition

STUDY 1: Corpus Analysis of Picture Books

Method
- 64 young books (i.e., targeting 0-3-year-olds)
  - 1136 noun events
- 63 old books (i.e., targeting 4-8-year-olds)
  - 2250 noun events
- Metric: word-reference co-presence (book-level)

Results
- Higher co-presence in the younger books than the older books, \( t(124) = 2.41, p < 0.05, \alpha = 0.43 \)
- The target audience effect was driven by first-learned nouns, \( t(117) = 2.88, p < 0.01, \alpha = 0.52 \)

STUDY 2: Picture Book-Adapted Human Simulation Paradigm (HSP)

Method
- 32 undergraduates
- Task: guess the noun best fitting the page
- Stimuli: 40 target nouns (e.g., bird, eye, boy)
  - All text removed from pages
  - Example stimuli pages for the target ‘eye’

Results
- Higher accuracy for young books than the old books, \( t(31) = 2.13, p < 0.01 \)
- Noun type did not explain target age effects, \( \rho's > 0.10 \)

DISCUSSION

- Picture books are regarded as an invaluable tool for learning.
- Our multi-method approach highlights how picture books’ visual input is coarsely tuned to young learners.
- Results suggest that metrics can shape conclusions about referential transparency trends.
- This work therefore advances our understanding of:
  - The visual world of picture books
  - How picture books could support early word learning

REFERENCES / ACKNOWLEDGEMENTS