Word learning across domains: Preschoolers' selective use of child and adult informants

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Introduction

Children selectively choose whom to learn from [1]:

- Track past accuracy and reliability [2]
- Use social categories and familiarity [3, 4]
- Consider expertise and domains [5, 6]

However, most work examines *judgments*, not *learning outcomes*

We test whether informant age (child vs. adult) and object domain (toys vs. tools) shape informant choices and word learning.

Current Study

Participants: 3-to-5-year-olds

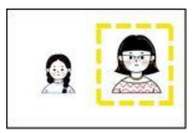
- n = 42 (M = 4.18 years, SD = 0.63, range: 3.30 – 5.43 years).
- Data collection in progress, target sample = 60

Stimuli

- 6 novel objects + 6 "nonce words" from the NOUN Database [7]
- Sentences recorded by a child speaker (5 yr-old female), an adult speaker (young adult female), and an experimenter (young adult female)

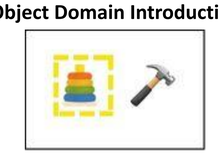
Procedure

Informant Introduction



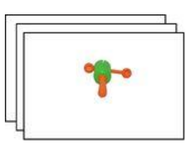
This is a child, just like you.
This is an adult, just like your parents.

Object Domain Introduction

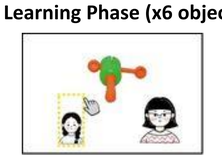


This is a toy/tool! Do you see it?
It's a toy/tool!

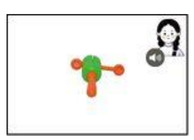
Learning Phase (x6 objects)



Look at this toy/tool!

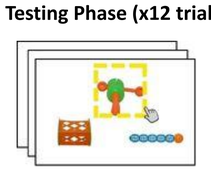


Who do you think ***knows*** what this thing is called?
Who would you like to ***learn*** the name of this object from?



This is a toma! Look at the toma!
The toma is a toy/tool!

Testing Phase (x12 trials)



Can you find the toma?

Acknowledgements
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Children Helping Science, Data Collection

Citations

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Results

RQ1 & RQ2. Does object domain influence knowledge attribution and/or learning preference?

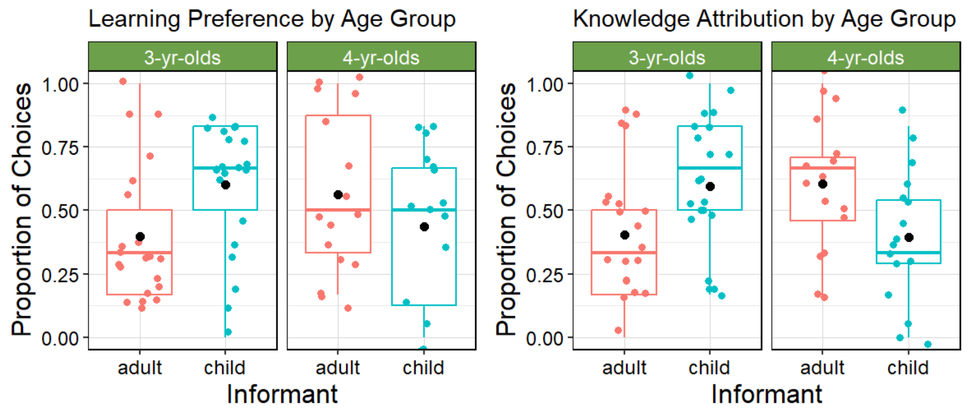
Participants' child and adult informant choices did not differ by object domain for learning (p = 0.338) or knowledge attribution (p = 0.589)

Informant choices differed by age group for both learning preference ($\chi^2(1) = 5.35$, $p = .02$) and knowledge attribution ($\chi^2(1) = 7.89$, $p = .004$).

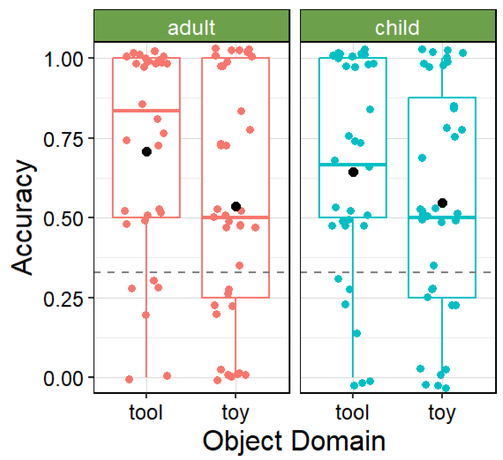
- 3-year-olds preferred the child informant
- 4-year-olds preferred the adult informant

Children chose the same informant for learning and knowledge 84% of the time ($\chi^2(1) = 114.68$, $p < .001$)

- Dissociation was more common for toys (21%) than tools (11%), $\chi^2(1) = 4.19$, $p = .041$



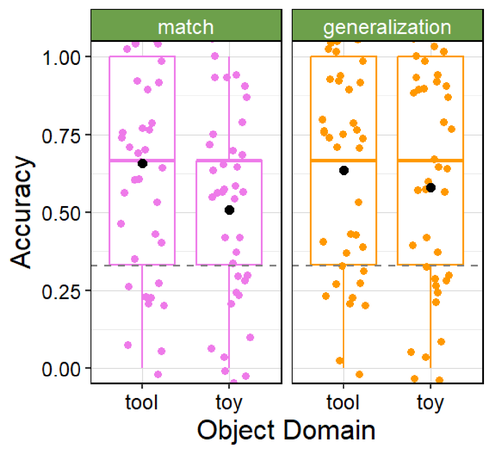
RQ3. Do object domain and/or informant predict learning?



Word learning was significantly above chance (M = 60%, $p < .001$).

- Does not differ by age ($p > .05$)
- Higher for tools than toys ($p = .011$)
- Did not differ by chosen informant or interactions ($p > .05$)

RQ4. Do children generalize newly learned words to the other speaker?



- Participants readily generalized to novel speaker at test ($p > .05$)
- Generalization did not differ for toys vs. tools

Conclusions

RQ1&2
Object domain does not influence knowledge attribution or learning preferences, but younger preschoolers prefer learning from other children

RQ3
Children learn names for tools better than toys, but it does not matter who taught them

RQ4
Learning generalizes to when a novel speaker produces the word as well

Together these findings suggest that preschoolers' word learning is robust and flexible, and that peers may serve as valuable sources of information early in development, even as children begin to privilege adult expertise with age.