Negative polarity or negative concord? Some children think *any* means *no.*

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Introduction

Children hypothesize the meanings of non-referential 'hard' words from their distributions.[1] But **what happens when distributional information is ambiguous with respect to meaning?**

90% of the time children hear *any,* it appears as an NPI licensed by negation.[2] However, under negation, its meaning appears identical to a negative quantifier in concord with another negator (negative concord item; NCI).

I don't have any potatoes = I don't have no_{NCI} potatoes

Children master NPI *any's* licensing conditions by age 3,[3] but do they also learn the adultlike **semantics** of *any* (e.g. domain widener; 'even+one')[4] by that age?

If children rely on distributional information to discern semantics, they must either:

1) Pay special attention to **disambiguating instances** to identify the existential semantics for *any* (e.g. do you want *any* cookies?)
2) Sometimes ends up confusing NPI *any* for an NCI

Method

Participants: English monolingual children (N=106; N≥20/year: 2;0-6;11) adults (N=20)

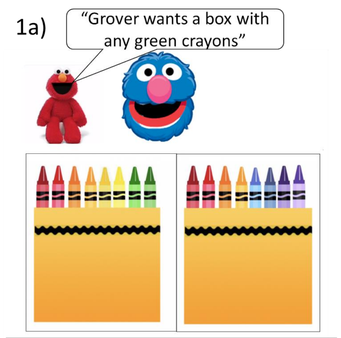
Design: Two picture-choice tasks containing 8 trials each

1. The "Crayon" task (Fig. 1a): a grammatical, free-choice use of *any*

"Grover [wants/doesn't want] a box with [any/blick/no/some] [color] crayons"

2. The "Liquid" task (Fig.1b); ungrammatical use of *any* in an upward entailing environment.

"John [has/doesn't have] [any/dax/no/some] [liquid]"



Results

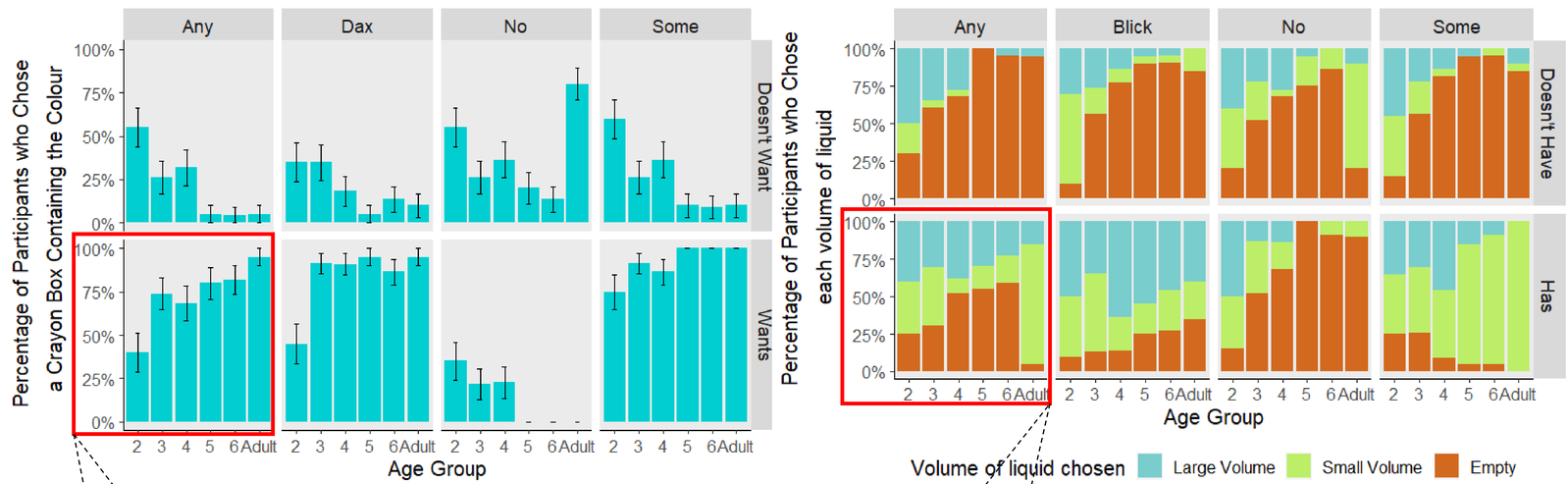
As the meanings of *any* and no_{NCI} are identical under negation, logistic GLMERs modelled participants' choice on **affirmative** *any* trials (Crayon task: with-vs-without mentioned color; Liquid task: empty-vs-not).

a) "Crayon" task

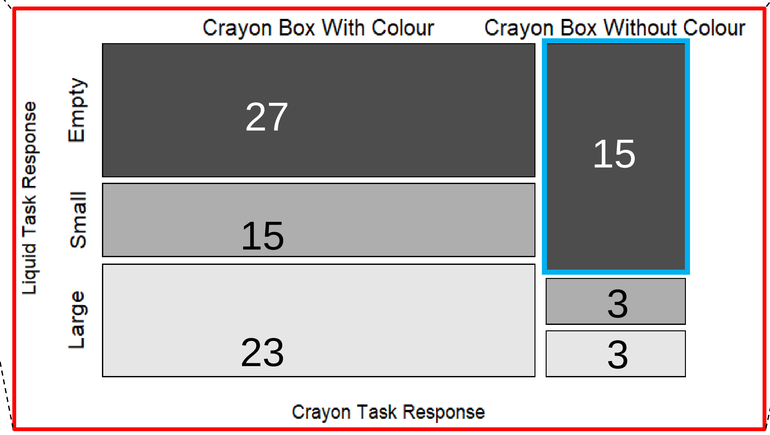
- In the crayon task, 3-6-year-olds chose the box without the mentioned color more than adults ($\chi 2(1)=4.6$, $p=.03$.

b) "Liquid" task

- In the liquid task, most 3-6-year-olds treated *any* as meaning no_{NCI} choosing the empty glass much more than adults ($\chi 2(1)=16$, $p<.001$).



c) Cross-tab of Children's responses across tasks



- Across tasks, children who chose the crayon box without the mentioned color in the crayon task were significantly more likely to choose the empty glass in the liquid task (Spearman's r=.26, $p=.017$).

Conclusion

A subpopulation of children **systematically misanalyse *any* as an NCI equivalent to no_{NCI}** through age 6.

- Children's interpretation of two negators as one negation is a misanalysis, not a processing difficulty.[5]
- Without enough disambiguating information in their input, some children assume their language has an NCI (even when it doesn't!)
- Could this indicate an innate bias toward NCI interpretations of negatively sensitive word? [6,7]

References

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