

Does First-hand Experience Improve Children's Ability to Discern Between Helpful and  
Tricky Informants?

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## Abstract

Prior research on children's trust has typically offered children either first-hand information about an informant's intentions (e.g., they directly observe someone helping another person) or second-hand information (e.g., they are simply told someone is helpful). We tested whether receiving both kinds of information facilitates selective trust in a helpful vs. tricky informant. 3- and 4-year-olds searched for a sticker 6 times after hearing conflicting advice from two informants about the sticker's location. Children did not receive feedback during the sticker-finding task. In the second-hand condition, the researcher simply described one informant as "helpful", and the other as "tricky" before the trials began. In the combined condition, children were first asked to guess what animal was in a box after each informant offered advice: each informant gave consistently helpful or consistently deceptive advice across 3 trials. Children received feedback by peeking inside the box. The informant's intentions were then described as in the second-hand condition and the test trials followed. Additionally, children completed 3 tasks from the NIH Toolbox Kit that measured vocabulary and executive functioning. Parents were given a short questionnaire regarding their demographics, the Children's Social Understanding Scale (CSUS) and the BRIEF (Behavior Rating Inventory of Executive Function) that measures executive functioning impairments.

*Keywords:* keywords

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Selective trust testimony refers to young children's ability to reason about informants' knowledge, honesty, and competency (Liu, Vanderbilt, & Heyman, 2013). Previous research has found that young children (4- and 5-year-olds) are not overly credulous and prefer to trust informants who have been previously reliable compared to an informants who have been previously unreliable (Koenig & Harris, 2005; Nurmsoo & Robinson, 2009). These trust tasks have often been conducted using a word-learning paradigm (Koenig & Harris, 2005) and more recently using a sticker-finding task (Liu et al., 2013; Vanderbilt, Heyman, & Liu, 2014). However, minimal research has examined the effect of first-hand versus second-hand information in young children's trust decisions. Additionally, few studies have examined individual differences in cognitive functioning in relation to children's ability to selectively trust a reliable informant over an unreliable informant. In a previous study we examined preschool-age children's (3-, 4-, and 5-year-olds) ability to reason about the relative knowledge or honesty of two sources presented together (Ochoa & Vanderbilt, 2018). We found that 4- and 5-year-olds trusted the reliable informant over the unreliable informant. Three-year-olds were not selective in their trust of the reliable informant, even though 50% of the children said that the reliable informant was better to listen to. It is possible, however, that when children have firsthand experience with informants' traits, the traits will become more salient and therefore have a stronger influence on children's trust decisions. The purpose of this current study is to examine whether children are better at selectively trusting reliable informants over unreliable informants when they must infer the informant's traits, by experiencing them first-hand, rather than receiving second-hand information from an experimenter. A secondary aim is to look at preschool-age children's cognitive abilities in relation to their ability to selectively trust reliable informants over unreliable informants.

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## Methods

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study.

### Participants

### Material

### Procedure

### Data analysis

We used R (Version 3.5.1; R Core Team, 2018) and the R-packages *bindrcpp* (Version 0.2.2; Müller, 2018), *dplyr* (Version 0.7.6; Wickham, François, Henry, & Müller, 2018), *forcats* (Version 0.3.0; Wickham, 2018a), *ggplot2* (Version 3.0.0; Wickham, 2016), *here* (Version 0.1; Müller, 2017), *janitor* (Version 1.1.1; Firke, 2018), *kableExtra* (Version 0.9.0; Zhu, 2018), *knitr* (Version 1.20; Xie, 2015), *magrittr* (Version 1.5; Bache & Wickham, 2014), *papaja* (Version 0.1.0.9842; Aust & Barth, 2018), *purrr* (Version 0.2.5; Henry & Wickham, 2018), *readr* (Version 1.1.1; Wickham, Hester, & François, 2017), *rio* (Version 0.5.10; C.-h. Chan, Chan, Leeper, & Becker, 2018), *stringr* (Version 1.3.1; Wickham, 2018b), *tibble* (Version 1.4.2; Müller & Wickham, 2018), *tidyr* (Version 0.8.1; Wickham & Henry, 2018), and *tidyverse* (Version 1.2.1; Wickham, 2017) for all our analyses.

## Results

### Plot 1

##	Df	Sum Sq	Mean Sq	F value	Pr(>F)
## age_group	1	23.39	23.386	12.556	0.000612 ***
## condition	1	4.65	4.653	2.498	0.117245

```
103 ## age_group:condition  1    1.27    1.273    0.684 0.410367
104 ## Residuals              96 178.80    1.862
105 ## ---
106 ## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

107 **Plot 2**

108 **Discussion**

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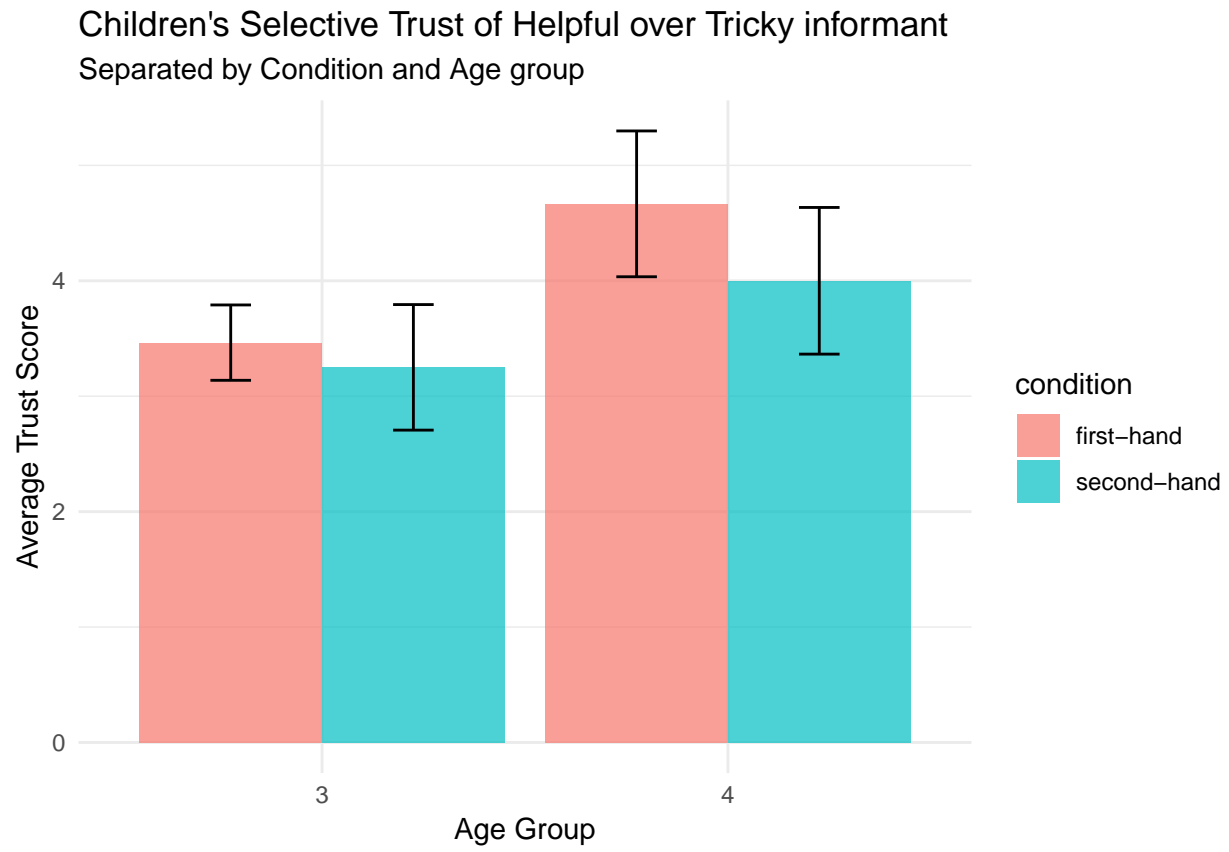
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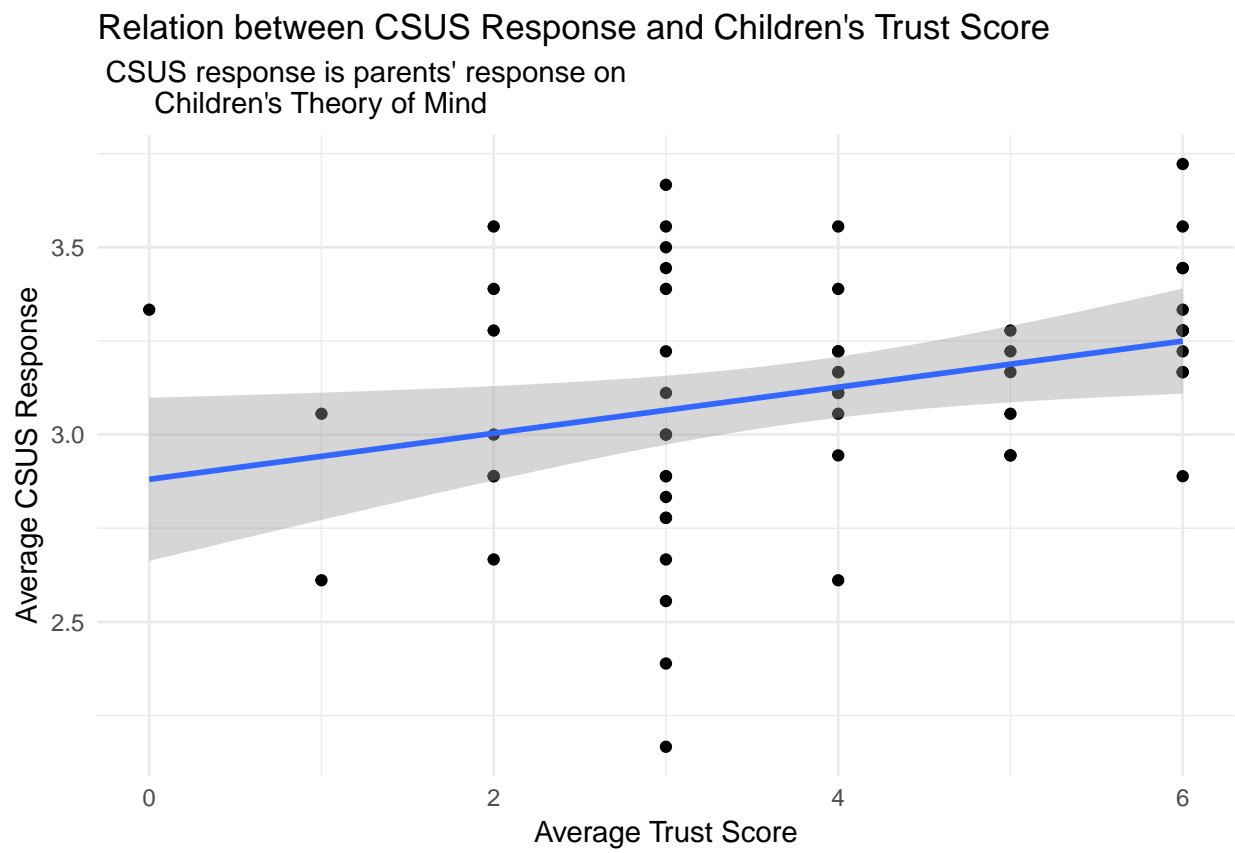
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age_group	n	sd_average_trust	se_average_trust	first-hand	second-hand
3	24	1.3593477	0.2774757	NA	3.25
3	28	0.8811669	0.1665249	3.46	NA
4	24	1.5788457	0.3222805	4.67	NA
4	24	1.5879985	0.3241488	NA	4.00

*Figure 1*

*Figure 2*

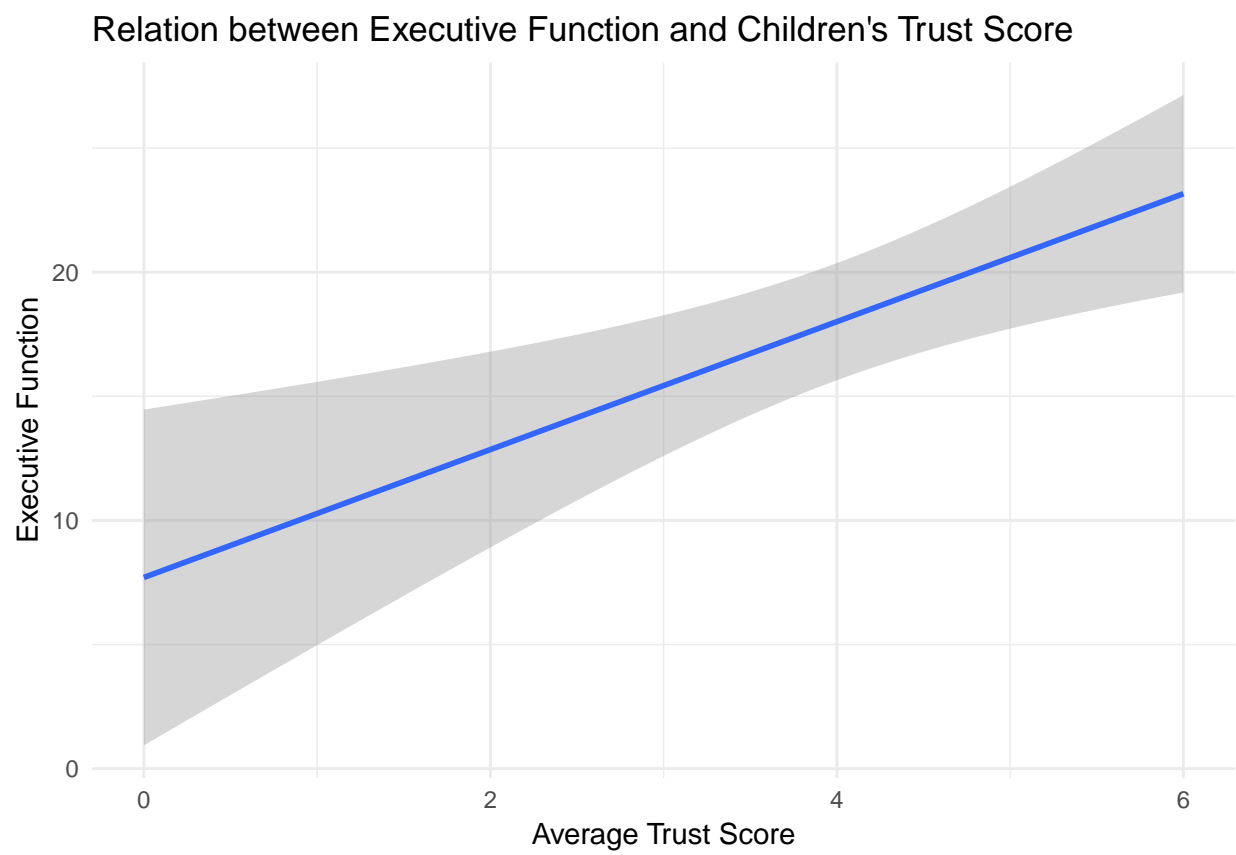


Figure 3