



# You LANG them! Re-evaluating Recasts as Negative Evidence



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## INTRODUCTION

How do children recognize and correct grammatical errors in their speech? Recent empirical evidence has established that mothers, fathers, and even siblings correct errors in children's speech through the use of recasts, a form of negative evidence that repeats the child's utterance with corrected grammar (Strapp, 1999). Despite the replication of these findings (Bohannon & Stanowicz, 1988; Farrar, 1990, 1992) the importance of negative feedback (e.g., recasts) to the acquisition of grammar continues to be controversial. In particular, little is known of the mechanisms that guide children's discrimination and interpretation of recasts.

One possibility is that children capitalize on pedagogical signals to distinguish recasts from other similar utterances. This study aims to investigate this possibility by presenting children with either recasts accompanied by pedagogical cues indicating corrective intent, or recasts presented in the absence of such cues.

This study addresses an important question in disambiguating the role of recasts in grammar acquisition: **Does the presence of pedagogical cues during recasts facilitate learning (retreat from error)?**

## METHODS

### Participants

Eighteen typically developing English-speaking children (mean age = 72.5 months, SD = 8.39, 9 females).

### Materials

#### Novel Verbs

- ling/lang: to make things that are lined up fall down.
- dake/doke: to make pieces stick together.

Modeled after real irregular verbs in English. Definitions were designed to be causative, telic, and transitive.

#### Toys & Props.

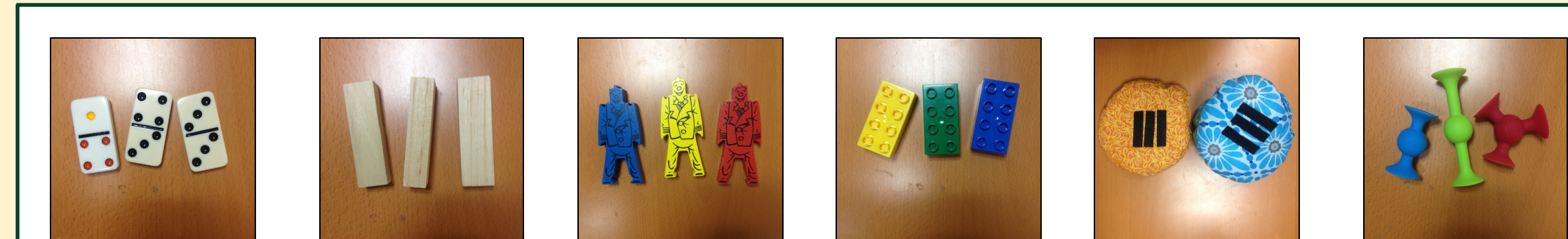


Fig. 1. Three different toys, which required physical manipulation, were used with each verb. Additionally, props were used to create games.

**Executive Function Measures.** This study used 5 executive function tasks: (1) Simon Says, (2) Dimensional Change Card Sort, (3) Corsi Block-Tapping Task, (4) Funny Sounds, and (5) Backwards Digit Span.

**Language Development Measure.** The Peabody Picture Vocabulary Test (PPVT) was used to measure language development.

**Social Understanding.** The Children's Social Understanding Scale (CSUS) was administered to parents.

### Design

#### Training Session

- 30 minute structured play session
- children learned the two novel verbs, their meaning, and their associated toys
- present tense form only

#### Experimental Session

- 25 minute structured play session.
- Past tense was prompted during play by questions
- **Child errors in production were corrected via a recast in one of two conditions:**

1. **Informative:** pedagogical cues signaling corrective intent accompany recasts
2. **Uninformative:** recasts are linguistically identical but lack pedagogical cues to corrective intent

#### Comprehension and Production Tests

- Wug Test (production)
- Berkley Puppet Interview [Adapted] (comprehension)

## PRELIMINARY RESULTS

### Differences in Learning Outcomes Between Conditions

#### Regression Model

Predictors	Significance
DV: Production Score	p = .031
Gender	.388
Age (Months)	.323
EF	.030*
PPVT	.001*
CSUS	.910
Condition	.344

\*significance at the .05 level

Fig. 2. DV: Production

N = 18  
10 uninformative  
8 informative

Predictors	Significance
DV: Comprehension Score	p = .002
Gender	.905
Age (Months)	.908
EF	.754
PPVT	.000*
CSUS	.454
Condition	.222

\*significance at the .05 level

Fig. 3. DV: Comprehension

#### Comparison of Production and Comprehension Scores Between Conditions

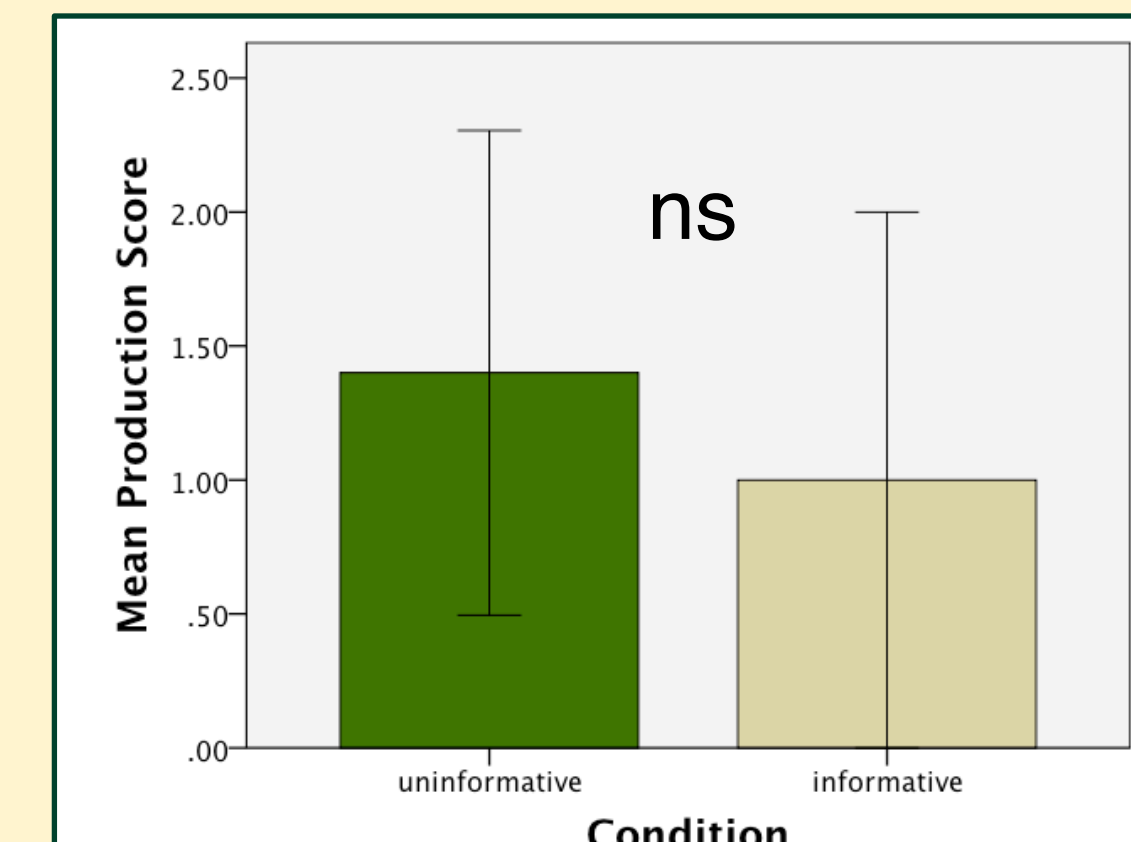


Fig. 4. WUG Scores for Novel Verbs.

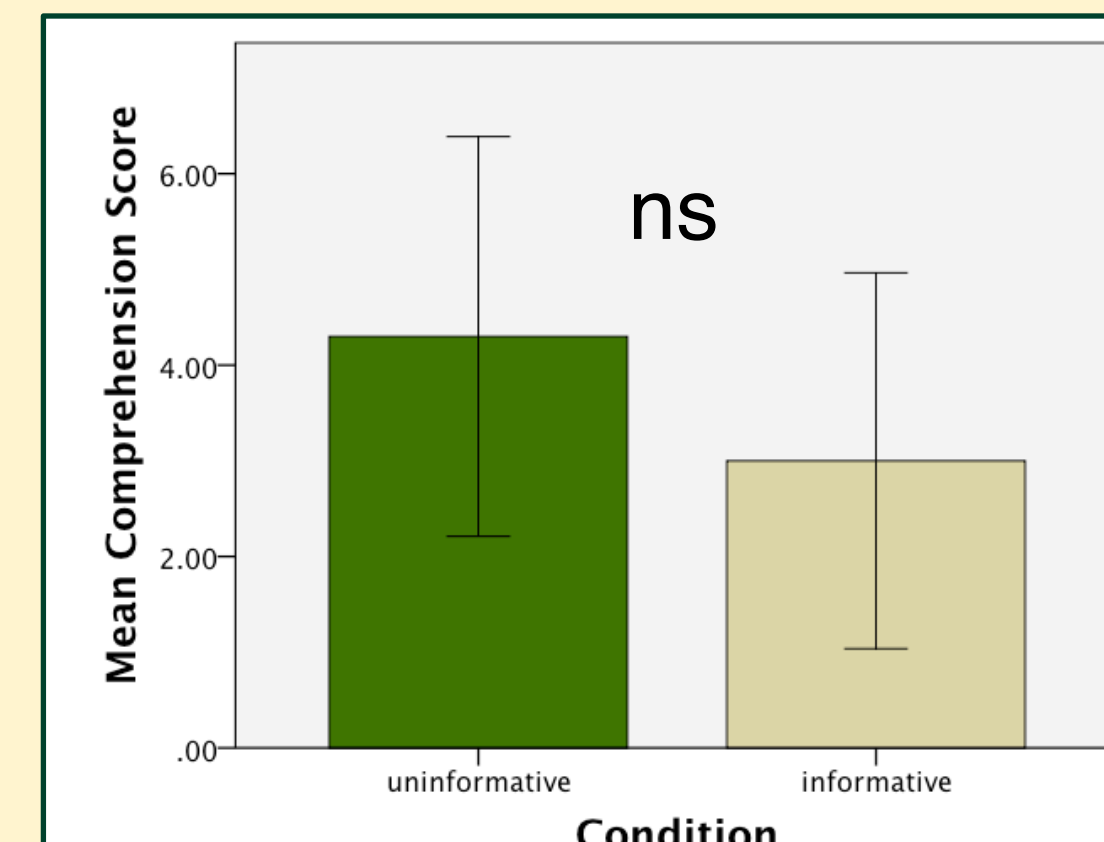


Fig. 5. BPI Scores for Novel Verbs.

#### Language Development significantly predicts Production and Comprehension Scores.

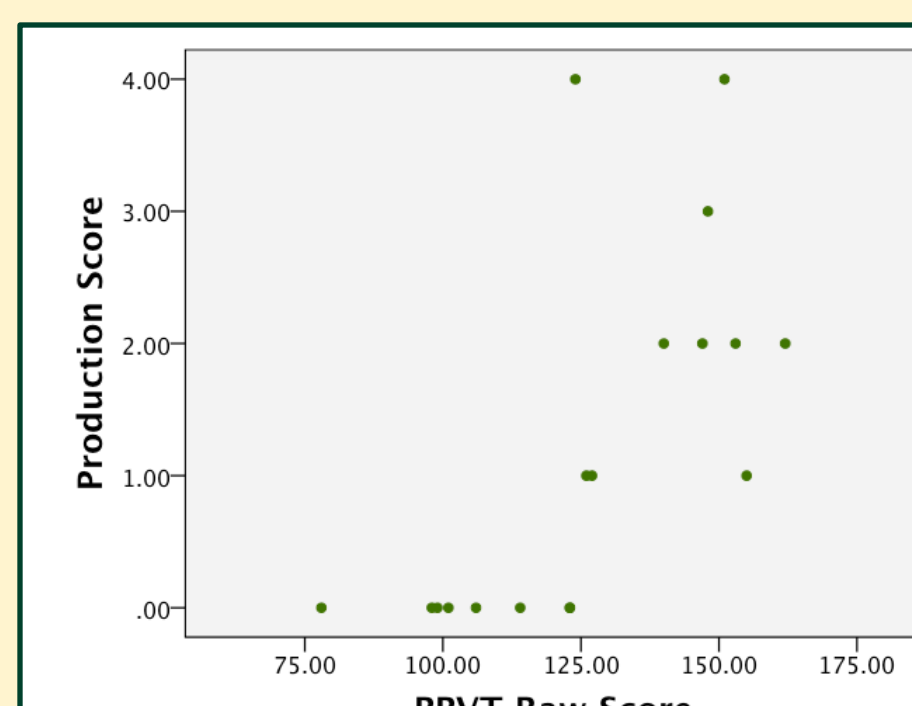


Fig. 6. Correlation between PPVT and Wug Score

Increased PPVT score corresponds to increased scores on Wug and BPI tests.

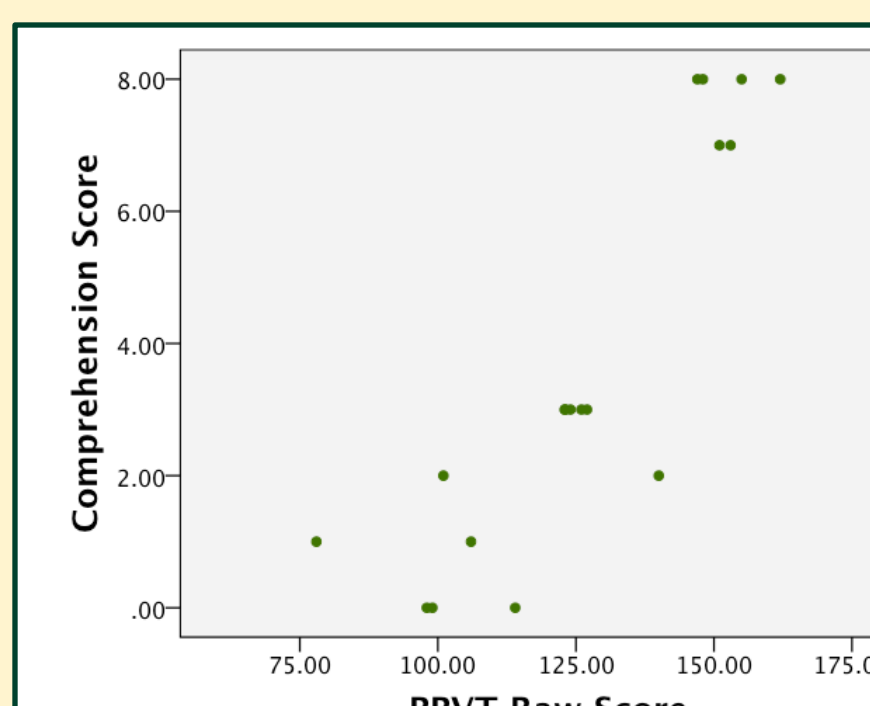


Fig. 7. Correlation between PPVT and BPI Score

## DISCUSSION

**In this preliminary sample, we did not see a significant difference in learning outcome measures for children in the informative vs. uninformative recast conditions.**

Language development (as measured by the PPVT) predicted performance on both the production,  $r(16) = .67, p < .05$ , and comprehension,  $r(16) = .88, p < .05$ , measures in this preliminary sample. This suggests that children's ability to learn the irregular past tense of our two novel verbs is linked to their general progress in language development. Although not surprising, this finding is important because it speaks to the validity of the task and the outcome measures used.

Executive function skill (a composite score from the five EF tasks used) predicted performance on the production measure but not the comprehension measure, after controlling for gender, age, general language ability (PPVT), social understanding (CSUS), and condition (informative or uninformative). This may be due to the increased demands of inhibiting a prepotent response in the production task compared to the comprehension task.

The results of this work will contribute to the growing body of research on how children use social cues to disambiguate linguistic input in the service of language acquisition.

## FUTURE DIRECTIONS

To address existing limitations in this study the following items are necessary:

- Collect a full sample and analyze that data in order to increase statistical power.
- Collect and analyze a full sample of corpus data from parent interactions with children to determine whether adults naturally produce additional pedagogical cues during corrective recasts and not during non-corrective recasts.
- Add a third condition in which children receive only models of correct past tense forms and no recasts to provide an additional point of comparison for the other conditions.

### References:

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