

### Introduction

- Children successfully learn words in a variety of conditions, often displaying no observable reduction in success despite the differences across these conditions (e.g., Akhtar, Jipson, & Callanan, 2001; Grela, Ervin, & Liu, 2004; Scofield, Williams, & Behrend, 2007).
- One explanation for this success is that children are particularly adept at using a speaker's attention (especially during episodes of joint attention) to infer referential intent.
- To further examine the roles of attention, joint attention, and referential intent in word learning, we conducted **2 studies**:
  - Study 1 examined the success of word learning when neither the speaker, nor child, directly attended the target.
  - Study 2 examined the success of word learning when referential intent was made explicit.

### Study 1 (No Attention):

2-year olds ( $N = 48$ ,  $M = 32$  months) were presented with an opaque wooden box containing a novel target object. Either a new word or a neutral comment was then presented by the speaker.

- e.g., *It's a koba. A koba. A koba.*  
 e.g., *Wow. Neat. Wow.*

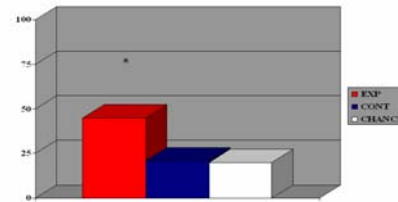
The target was then removed, revealed, and re-presented with 4 novel distracters. The child selected the object that best corresponded to the word.

- e.g., *Can you find the koba?*

Figure 1: Stimuli (Box and Novel Objects)



Figure 2: Word Learning in Study 1



EXPERIMENTAL / CHANCE  $\chi^2(1, N = 24) = 10.01, p < .01$   
 EXPERIMENTAL / CONTROL  $\chi^2(1, N = 24) = 3.375, p = .062$   
 CONTROL / CHANCE Not Different

### Study 2 (No Attention + Referential Intent):

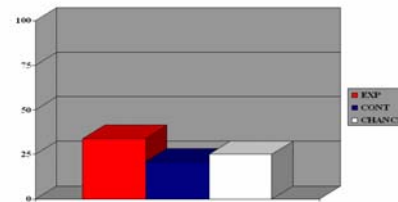
The rate of word learning in Study 1 was lower than in previous studies. Study 2 was designed to examine whether the absence of referential intent was a contributor.

2-year olds ( $N = 29$ ,  $M = 31.5$  months) were presented with an opaque wooden box containing a novel target object. Three cues to referential intent were presented:

- The speaker *shook* the box.
- The speaker *reached* into the box.
- The speaker *said*: I know what's in the box.

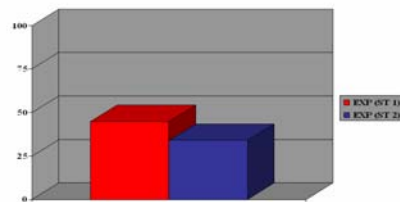
The remainder of Study 2 followed that of Study 1.

Figure 3: Word Learning in Study 2



EXPERIMENTAL / CHANCE Not Different  
 EXPERIMENTAL / CONTROL Not Different  
 CONTROL / CHANCE Not Different

Figure 3: Word Learning in Study 2 Compared to Study 1



STUDY 2 / STUDY 1 Not Different

### Conclusions:

- Successful word learning can occur in the absence of direct attention, by either partner, to the target.
- Successful word learning in the absence of direct attention to the target may not be as robust as when one or both partners attend to the target.
- Explicit cues to referential intent may not increase the rates of successful word learning.

### Overall Conclusion:

Successful word learning can occur in the absence of direct attention to the target and may not be improved by the presence of explicit cues to referential intent.