Scofield, J., Williams, A., & Behrend, D. A. (2008). Learning Words from Videos: Extension and Disambiguation. Poster presented at the International Conference on Infant Studies. Vancouver, Canada.

Introduction

- Word learning often occurs in the presence of a speaker and speaker-provided cues such as:
  - Pointing, Eye Gaze, Direction of Voice
  - Child Directed Speech
  - Joint Attention, Referential Intent
- However, recent studies have raised questions about the speaker's role in word learning.
  - Overhearing (Akhtar, Jipson, & Callanan, 2001)
  - Videos (Rice & Woodsmall, 1988)
  - Television (e.g., *Teletubbies*) (Kremar et al., 2007)

Study 1

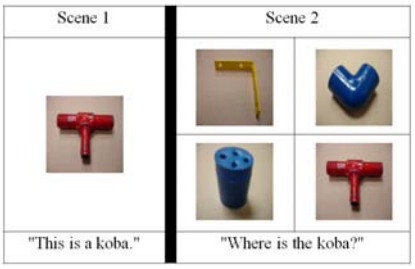
- The goal of Study 1 was to examine the success of word learning in the absence of speaker.
  - Unsuccessful word learning in the absence of a speaker would suggest that the speaker plays an important role in word learning.

  In contrast,
  - Successful word learning in the absence of a speaker would suggest that the speaker may not play an important role in word learning.

Method

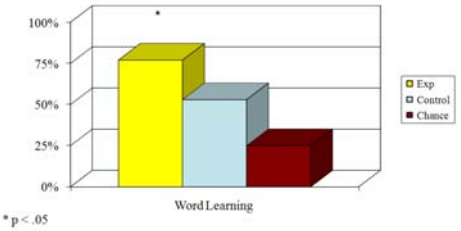
- **Participants**
  - 2-year-olds (n = 30, M = 32 months)
- **Procedure**
  - *Familiarization Phase* (2 Trials)
    - A familiar target object appeared on a computer screen and was labeled 3 times with a familiar word (e.g., "This is a dog.")
    - The target and 3 familiar distracters appeared on screen.
    - Children were asked to select the object that best corresponded to the familiar word (e.g., "Can you help me find the dog?")
  - *Test Phase* (5 Trials)
    - Experimental Condition (4 Trials)
      - An unfamiliar target object appeared on screen and was labeled 3 times with an unfamiliar word (e.g., "This is a koba.")
      - The target and 3 unfamiliar distracters appeared on screen.
      - Children were asked to select the object that best corresponded to the unfamiliar word (e.g., "Can you help me find the koba?")
    - Control Condition (1 Trial)
      - Same as the Experimental Condition except that the unfamiliar target object was labeled 3 times with a neutral comment (e.g., "Wow.")

Word Learning



Results

Figure 1: Experimental Trials Compared to Control/Chance



* $p < .05$

Conclusions

- Successful word learning can occur in the absence of a speaker (i.e., 77%) and does not appear to differ substantially from word learning in the presence of a speaker (i.e., 67%) (Kremar et al., 2007).

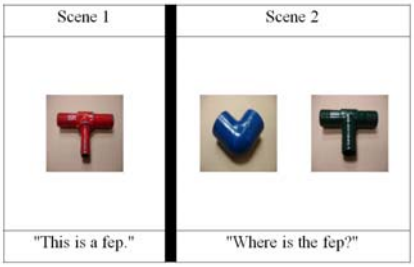
Study 2

- When children learn a word from a speaker they makes basic assumptions about how that word should be.
  - Taxonomy leads children to assume that similar objects can be labeled with the same word.
  - Mutual Exclusivity leads children to assume that different objects cannot be labeled with the same word.
- The goal of Study 2 was to examine the use of word learning assumptions for words learned in the absence of speaker.

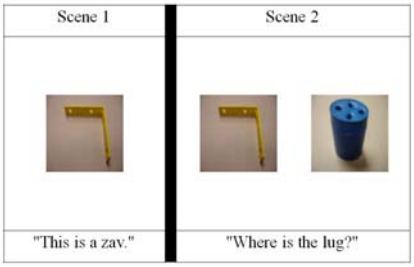
Method

- **Participants**
  - 2-year-olds ($n = 18$, $M = 31$ months)
- **Procedure**
  - Similar to Study 1.
    - *Word Learning* (2 Trials): Same as Study 1
    - *Extension* (2 Trials): An exemplar of the target object and an unfamiliar distracter appeared on screen.
    - *Disambiguation* (2 Trials): The target object and an unfamiliar distracter appeared on screen. Children were asked to select the object that best corresponded to a new unfamiliar word.

Extension

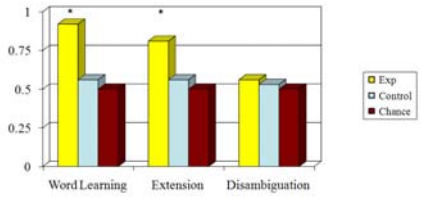


Disambiguation



Results

Figure 2: Experimental Trials Compared to Control/Chance



* $p < .05$

Conclusions

- When children learn a word in the absence of a speaker they assume that similar objects should be labeled with the same word.
- When children learn a word in the absence of a speaker they may not assume that dissimilar objects should be labeled with different words.

Overall Conclusion

These studies indicate that word learning can occur in the absence of a speaker but that word learning in the absence of a speaker may not be the same as word learning in the presence of a speaker.