Children's attention to full-body versus hands-only motionese

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Abstract

Instructors often embellish their demonstrations to children with exaggerated motion, pitch, and enthusiasm, a phenomenon referred to as "motionese" (Brand, Baldwin, & Ashburn 2002). Past research indicates that children imitate actions with greater accuracy when instructed with motionese (Williamson & Brand 2014). In this study, we show two types of motionese videos to two between subjects groups of 2-year-old children. The videos show an adult completing tasks using motionese with various novel objects; one group of children was shown a full-body view of the adult and another was shown only the hands of the adults. We measured children's attention by looking times in the two conditions. To date, the results show that there is no significant difference in looking times between the two conditions. This means the exaggerated emotions and eye contact may not be an important support to the physical motions.

Introduction

Past research has shown that adults often use "motionese" – exaggerated motions and enthusiastic facial expressions (Brand, Baldwin, & Ashburn 2002). Children often imitate more efficiently when instructed with motionese versus more typical adult-directed actions.

This study investigates what elements of motionese children respond to. Specifically, we examine whether there is a difference in children' attention when presented with only the hands of a demonstrator versus when facial expressions are included. To test this, we scored children's looking times to two types of motionese videos: one instructing with a full-body view of a demonstrator, and another instructing with only the hands of the instructor.

Hypothesis: Children who view the instruction with the entire body of the recorded demonstrator will show more attention to the video than children who view only the hands of an instructor.

Method

Participants

8 two-year-olds (3 males; *M* = 30.87 months, *SD* = 2.47) participated in this study.

Materials

One video shown to children was the full body of the instructor demonstrating specific tasks with the novel objects ("Full Body") and another video was only the hands of the instructor ("Hands").

Object	Demonstration Act	Picture
Slinky Box	1. Flip Switch atop box 2. Rotate box 3. Use took to lift lid 4. Reveal slinky	
Light	1. Remove band 2. Press red button 3. Tough the light with the back of the hand 4. Press the light to illuminate	
Snap Box	1. Lift handle on the lid 2. Unsnap the side latch 3. Apply tool to the lid 4. Remove lid to reveal a toy	
Music Machine	1. Press button at the bottom of container 2. Turn volume knob left and right 3. Remove pick from hook 4. Use pick to strum strings	

Procedure

Children were randomly assigned to one of two between subjects conditions which varied in the type of video shown.

Demonstration

Children first viewed the recording of the motionese demonstration of their assigned condition.

Test

After each clip, the experimenter presented the child with the object previously shown in the video, and allowed the to play with it for 30 seconds.

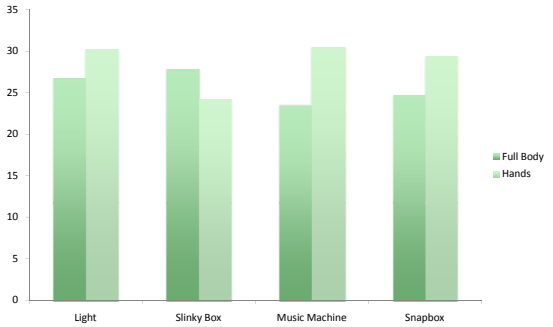
This process was repeated three additional times to accommodate all four subjects.

Scoring

Each experiment was recorded and coded frame-by-frame for looking times to measure attention span. Coding started when each video began, and ended when each video clip ended. Looking time was recorded when the child's eyes were seen to be on the screen playing the video.

Results

Average time that children looked at motionese instruction videos



No significant difference was observed between the conditions, $t(4) = 0.7457$, $p = 2.132$

Discussion

To date, no difference was observed in children's looking time to the Full Body versus Hands demonstrations. If this pattern holds with a larger sample, it would suggest that, for short presentations, the body movements of motionese are as engaging as demonstrations where a face is present. When more data is collected, we will be able to examine whether children also learn equally from the two types of demonstrations.

References

Brand, R., Baldwin D., & Ashburn, L. (2002). Evidence for 'motionese': modifications in mothers' infant-directed action. *Developmental Science*, 5:1, p72-83.

Williamson, R., & Brand, R. (2014). Child-directed action promotes 2-year-olds' imitation. *Georgia State University.*

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