

Animated versus static picture stimuli as story elicitation contexts

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Introduction

Research on children's storytelling has found that the quality of children's stories varies with the method used to elicit the stories. Schneider (1996) found that stories elicited by pictures alone elicited stories with less story information than stories elicited using oral versions from children with language impairments aged 5-9 years. Schneider and Dubé (2005) found similar results with typically developing children in Kindergarten and Grade 2.

It is likely that children provided less information with pictures because they did not correctly interpret the story information provided in the pictures, but they were able to recall story information provided in the oral stories. One possible interpretation of the results is that children have difficulty telling stories from visual stimuli in general. However, their different performance may have less to do with visual versus auditory stimuli and more to do with the static nature of the pictures. It is possible that with dynamically presented visual stimuli, children are able to provide more story information.

The current study compared children's narrations of a simple story from pictures with narrations from an animated version of the same story. The story is from the Edmonton Narrative Norms Instrument (ENNI; Schneider, Dubé, & Hayward, 2005), an instrument that was used to collect local norms on storytelling from children aged 4-9. The pictures were drawn by a professional cartoonist according to story scripts created by Dubé (2000). The scripts contained information corresponding to story grammar units (Stein & Glenn, 1979). The picture set consists of 5 line drawings depicting 2 characters in a single-episode story.

Research Question: Will 4-year-old children produce better stories in terms of story grammar information scores while viewing an animated story than children who view pictures of the story?

Methods

Stimuli

- An animated version of the picture set was created using Macromedia Flash.
- Each picture of the static story was presented as in the original, and then, after pressing an on-screen button, one part of that picture was animated.
 - For example, in the first picture which shows one of the characters bouncing a ball, the animation shows the ball going into the water (the Initiating Event of the story).
- Animations were created for 4 story grammar units: Initiating Event, Internal Response, Attempt, and Outcome.

Participants

- 50 children attending daycares and preschools in Edmonton, Alberta.
- Animated group: 25 children with a mean age of 53.22 months (range 48.44-58.44 months).
- Static group: 25 children from the ENNI normative sample of 50 typically-developing 4 year olds, selected to match the Animated group in number and age; the Static group had a mean age of 52.88 months (range 48.43-55.5 months).

Procedure

Children were seen individually in their daycares or preschools.

Static condition: The procedure for the original ENNI sample (from which the Static group was extracted) was as follows:

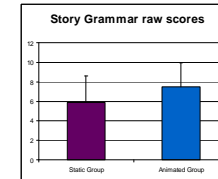
- The examiner went through the story for the child to preview it, and then turned the pages for the child as the child told the story.
- The examiner held the book so that she could not see the story. Instructions emphasized that the examiner would not be able to see the pictures.

Animated condition:

- The animated story was presented on a Compaq Presario laptop computer with a mouse.
- Because it was necessary to see the screen in order to advance the story, it was not possible to have a single examiner who was unable to see the story. Thus two adults were present at data collection, one to serve as story presenter and the other to serve as 'naïve' listener. The listener sat behind the computer screen. Instructions emphasized that the listener would not be able to see the story.

In both conditions, stories were audiotaped, transcribed, and scored for Story Grammar units using the ENNI scoring protocol.

Results



The Animated group produced higher Story Grammar scores than the Static group, $t(48) = 2.08$, $p = .04$, $d = .59$.

Thus it appears that 4-year-old children benefit from animations of key story parts and will provide more information when presented with an animated story. The effect size was in the moderate range.

This suggests that part of young children's difficulty with picture stories may be due to difficulty in 'reading' pictures and conventions for representing actions and in inferring relations among pictures. It also suggests that story grammar knowledge is not something that a child 'has' or 'doesn't have', but rather that a child will produce more or less story information depending on contextual support.

References

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