A study was conducted to determine whether children think about the verbal messages embedded in songs, or merely sing the words without thinking about them. A total of 48 preschool girls and boys viewed a televised vignette of the song "Frere Jacques" under varying conditions of language comprehensibility, rehearsal, and repetition. The visual track always depicted a sleeping friar who was awakened by ringing bells, while the audiotrack presented the accompanying song in either French or English. The song was played two times during each exposure. In active rehearsal conditions, children were asked to sing during the second presentation. In passive rehearsal conditions, children were asked to listen to the song one more time. The repetition condition involved repeated exposure to the vignette for 4 successive days, while the no repetition condition involved exposure for 1 day only. Children who repeatedly viewed the French vignette recalled more words verbatim than did children in other conditions. Older children better understood the sequence of visual story events and the meaning of song lyrics than younger children. The results suggested that songs lead to children's relatively superficial information processing activities without any major impact on learning. Given this implication, an educational challenge is to elicit mindful, semantic processing for the many lyrics that children sing with little effort. (AC)
Preschoolers' Recitation Versus Understanding of a Televised Song

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Preschoolers' Recitation Versus Understanding of a Televised Song

Abstract

Preschool girls and boys viewed a televised vignette of the song "Frere Jacques" under varying conditions of repetition (absent versus present), language comprehensibility (French versus English), and rehearsal (absent versus present). Children who repeatedly viewed the French vignette recalled more words verbatim than did those in other conditions. However, children's understanding of song lyrics was only associated with age. Results are interpreted within a levels of processing framework.
Preschoolers' Recitation Versus Understanding of a Televised Song

Sandra L. Calvert, Nanette Jarmain & Arminda Gomes

Although cultures have transmitted verbal information through songs for centuries, we know relatively little about how songs are actually remembered and understood (Calvert & Tart, in press). Do children, for instance, think about the verbal messages embedded in a song, or do they sing those words mindlessly? The purpose of this study is to examine just that question. Specifically, we examine young children's word-for-word recitation versus understanding of a televised song.

Using Craik and Lockhart's (1972) model, one may predict that different forms of information presentation may elicit different levels of information processing by children. The acoustic and prosodic properties of nursery rhymes and songs, for example, may predispose learners to process content at a relatively superficial level (sound) rather than at a deeper semantic level (meaning). Indeed, children's verbatim word-for-word recall of rhymes is superior to prose passages (Johnson & Hayes, 1987), but prose passages are better understood (Hayes, Chemelski & Palmer, 1982). Similarly, we predicted that repeated exposure to a song would improve children's verbatim word-for-word recall (recitation) of lyrics more than would a single exposure, but that repeated exposure to a song would not improve understanding of that content.
Method

Forty-eight preschoolers viewed a televised vignette of the song "Frere Jacques" under varying conditions of repetition (absent vs. present), language comprehensibility (English vs. French), and rehearsal (passive vs. active). The visual track always depicted a sleeping friar who was awakened by ringing bells. The auditory track presented the accompanying song in either English or French. The song was played two times during each exposure. In active rehearsal conditions, children were asked to sing during the second presentation. In passive rehearsal conditions, children were asked to listen to the song one more time. The repetition condition involved repeated exposure to the vignette for four successive days. The no repetition condition involved exposure for one day only. After treatment conditions were completed, children were tested for verbatim recall of song lyrics (recitation), seriation of visual program events, and recognition of central story events.

Results

The percent of verbatim recall, the number of visual events sequenced correctly, and the number of central events correctly recognized were submitted, in turn, to a 2 (repetition) by 2 (language comprehensibility) by 2 (rehearsal) analysis of covariance with age in months as a covariate. As predicted, the ANCOVA computed on verbatim recall scores yielded a main effect of repetition, $F (1,39) = 7.23, p < .01$, qualified by a language
Preschoolers' Recitation

by repetition interaction, $F(1,39) = 4.59, p < .05$. As seen in Table 1, preschoolers in the repeated French condition recalled more words verbatim than did those in the repeated English condition.

The ANCOVA computed on seriation and multiple-choice recognition scores only yielded age effects. The older children were, the better they understood the sequence of visual story events, $F(1,39) = 8.56, p < .01$, and the meaning of song lyrics, $F(1,39) = 8.03, p < .01$.

Discussion

The purpose of this study was to examine children's recitation versus understanding of a televised song. As found in the nursery rhyme literature (Johnson & Hayes, 1987), preschoolers who were repeatedly exposed to a song recited the words well, but failed to process its meaning.

In Craik and Lockhart's (1972) model, information may be processed at a relatively superficial level at the expense of the semantic meaning. That indeed appeared to be the case here. Repeated exposure to the French version of "Frere Jacques" led to very good recitation over the more comprehensible English version. Comprehensibility and repetition, however, had no impact on children's understanding of the song lyrics. In fact,
the incomprehensible French version was understood just as well as the comprehensible English version, even after repeated viewings of the vignette. Taken together, these results suggest that songs lead to relatively superficial information processing activities without any major impact on learning.

Teachers often use songs as a mnemonic device to improve young children’s memory of verbally-presented content. If the goal is to enhance recitation, then that approach has merit. If, however, the goal is to foster understanding of the lyrics, then the approach has clear limitations. The educational challenge is to elicit mindful, semantic processing for the many lyrics that children sing with little effort.
References


Table 1
Mean Percent Verbatim Recall as a Function of Repetition and Language Comprehensibility

<table>
<thead>
<tr>
<th>Language</th>
<th>NO REPETITION</th>
<th>REPETITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH</td>
<td>23.33&lt;sup&gt;b&lt;/sup&gt; (34.25)</td>
<td>28.42&lt;sup&gt;b&lt;/sup&gt; (32.39)</td>
</tr>
<tr>
<td>FRENCH</td>
<td>16.25&lt;sup&gt;b&lt;/sup&gt; (30.09)</td>
<td>61.25&lt;sup&gt;a&lt;/sup&gt; (28.93)</td>
</tr>
</tbody>
</table>

Means with different level superscripts are significantly different at p < .05. Cell means are based on 12 subjects. Standard deviations are presented in parentheses.