Introduction

• Many individuals with autism display echolalia, the parrot-like repetition of words or phrases spoken by another individual either in the preceding moments (i.e., immediate echolalia) or after a substantial period of time has elapsed (i.e., delayed echolalia).

• One approach to the treatment of echolalia is to teach alternative or incompatible vocal responses (e.g., Charlop-Christy & Kelso, 2003; Ross, 2002; Schreibman & Carr, 1978).

• A limited number of previous investigations have a) used controlled functional analysis methods to systematically evaluate the function(s) of echolalia and b) presented session-by-session measures of alternative vocal behavior and stereotyped vocalizations.

• The purpose of the current project was to extend the literature on the assessment and treatment of echolalia by including an experimental functional analysis and examining the effects of script-fading with respect to both adaptive and aberrant vocal behaviors.

Method

Participant

• 15 year old boy diagnosed with autism.

• Admitted to the Severe Behavior Program for the treatment of delayed echolalia (e.g., reciting dialogue from movies and television programs).

• Caregivers reported that the participant was able to read at a 3rd grade level.

Functional Analysis

• A functional analysis of delayed echolalia was conducted to identify the function of the behavior using methods described by Iwata et al. (1982).

Script-Fading

• Baseline: Participant and therapist sat side-by-side in the session room. The therapist asked a different open-ended question (e.g., “Where should we go, later?”) every 30 sec. Descriptive praise was delivered for all appropriate initiations and responses. All instances of echolalia were ignored.

• Textual Prompting (Script): Identical to baseline except that a one-page script including textual prompts for eight initiations and eight responses was presented to the participant at the beginning of the session. Complete interactions (defined as one scripted participant initiation and one scripted participant response to the therapist’s question) were reinforced on a continuous basis with 1 min access to a highly preferred activity.

• Fading: Identical to the prompting condition except that the content and size of the textual prompts were faded by 50% following two consecutive sessions during which the participant emitted the scripted statements with at least 85% accuracy. The terminal level of fading entailed giving the participant a pocket-sized card with bullets and no text.

• Generalization (No Card, Card): Identical to the terminal level of fading except that sessions were conducted in a novel setting with a caregiver who did not participate in any of the previous phases of treatment. During the first phase (No Card), the participant was seated side-by-side with his caregiver for 5 min. The second phase (Card) was identical to the first phase except that the pocket-sized card from script-fading was present on the table.

Results and Discussion

• The script-fading and reinforcement procedures were effective for reducing automatically reinforced echolalia and maintaining appropriate conversation.

• Not surprisingly, session-by-session data on the occurrence of echolalia demonstrated a roughly inverse relation between scripted vocalizations and stereotyped vocalizations.

• Preliminary data suggest that treatment effects generalized across people and settings when the pocket-sized card from script-fading was present.

• Future studies should attempt to thin the schedule of reinforcement and examine maintenance of treatment effects, particularly in cases of automatically reinforced echolalia. In addition, a more thorough analysis of the necessary conditions (e.g., multiple exemplar training) for conversation skills to generalize to new topics and contexts is warranted.