Behavioral Connections
ABA *Outside the Box*

Using an Echoic to Tact Transfer-of-Stimulus Control Procedure to Teach Tacting Skills to a Learner with Autism

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Introduction

Many individuals with Autism Spectrum Disorder (ASD) lack the skills necessary to become effective communicators with family members and typically developing peers. Skinner (1957) classified language into verbal operants, which illustrated the various functions of language. One verbal operant called the Tact, or the ability to label items in the environment, is a major foundation for language development (Sundberg & Partington, 1998).

Sundberg and Partington (1998) suggested teaching tacting skills by presenting an object or picture with a verbal prompt (e.g. “What is it?”) and an echoic prompt (e.g. “baby”). The verbal and echoic prompts are faded out over time allowing only the presence of the object or picture to emit a response from the learner.

The participant of the current study was evaluated using the Verbal Behavior Milestones Assessment and Placement Program (VB-MAPP), which indicated that he was not able to demonstrate the ability to tact. The participant demonstrated strong echoic ability once instructional control was established with his instructors.

The participant did not reliably respond to the prescribed method of intervention recommended by Sundberg and Partington (1998) and errorless teaching procedures, therefore this intervention was used to evaluate the efficacy of an alternative transfer-of-stimulus control procedure. This research will further support the use of a Transfer-of-Stimulus Control intervention to strengthen tacting skills using echoic prompts.

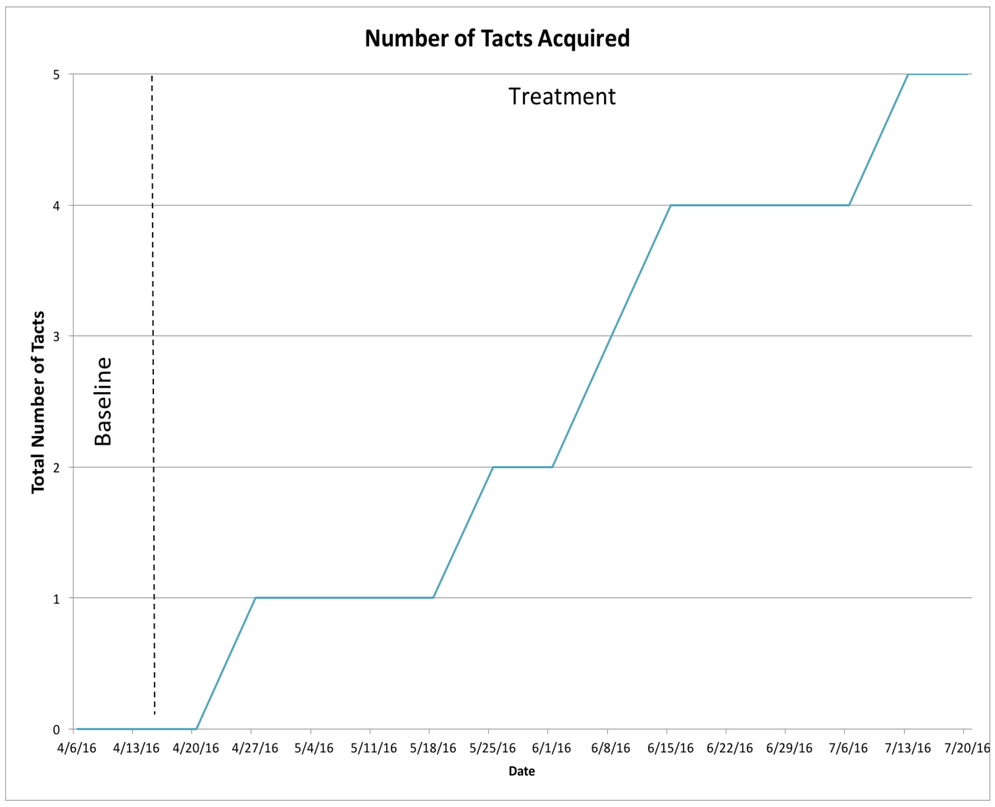
Methods

Participant: A three-year-old male diagnosed with ASD receiving clinic-based ABA services with Behavioral Connections since 2015.
Materials: Two chairs, a table, a pencil, data sheet, and potential reinforcers. Verbal Behavior Milestones Assessment and Placement Program (VB-MAPP) tool, Early Echoics Skills Assessment (EESA), Language Builder Cards, Known Skills Card.
Procedure:
Baseline: Data was collected on tacting four picture stimuli without prompts.
Intervention: Echoic to Tact Transfer-of-Stimulus-Control consisted of three phases. Data was collected on tacting four picture stimuli during the first session of the day with the provided prompt. The procedure for each phase is outlined below:

Phase One	Phase Two	Phase Three
Echoic Trial – Instructor	Echoic Trial - I	(No Intervention)
Echoic Response - Participant	Echoic Response - P	Picture Tact Card - I
Picture Card Tact -I	Instructor presents 1-2 known skills Participant Responds	Vocal Tact Response - P
Vocal Tact Response - P	Picture Card Tact - I	Instructor Delivers Sr+
Instructor Delivers Sr+	Vocal Tact Response - P	
	Instructor Delivers Sr+	

Mastery Criteria: 100% accuracy with provided prompt for two consecutive days. Maintenance probes will be conducted following mastery.
Procedural Integrity: Procedural integrity levels were 100% for Phase One, 97% for Phase Two, and 100% for Phase Three
Hypothesis: The investigators predict that the participant’s tacting skills will increase after implementation of the Echoic to Tact Transfer-of-Stimulus Control intervention

Results



Discussion

Results: During baseline, the participant did not acquire any tacts. During treatment, the participant met criteria for 5 tacts, which were: Movie, Baby, Water, Car, and Lion. The participant is currently working on the following tacts: Book, Cookie, and Cat.

Implications: Overall, the Echoic to Tact Transfer-of-Stimulus-Control procedure was successful with increasing the participant’s tacting skills (N=5 during treatment vs. N=0 during baseline). It appears that there was a transfer of stimulus control from the echoic to the tact during treatment.

Limitations: Although this procedure was effective with transferring stimulus control for this participant it should be generalized across individuals with different disabilities. The present study employed an AB experimental design, which does not rule out other variables that could have resulted in the increase of tacting skills.

Future Research: Assessing this procedure with a multiple baseline design could better demonstrate experimental control. Additional research may evaluate the effectiveness of this intervention to teach other verbal operants (i.e., intraverbals, textual).