Phonological Intervention Using A Multiple Opposition Approach

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INTRODUCTION
The construct of oppositional representations in phonological intervention has been shown to be effective in remediating speech disorders in children for the past several decades (cf., Winter, 1983; Guerri, 1989, 1992). Although derivations of constructive oppositions have been examined, particularly with the nature of the comparative sounds contrasted with the target sound (i.e., known – unknown; unknown – unknown), all varieties have incorporated a singular contrast. Frequently, however, children with severe speech disorders will habitually multisound antecedents to a single phoneme in their sound system (Williams, 2000). The purpose of this investigation was to examine phonological restructuring when constructive oppositions were constricted to include larger treatment sets that confined the child with multiple sound targets selected from an entire rule set.

PARTICIPANTS
Fifteen children with moderate to severe phonological impairments served as participants in this study. Two girls and nine boys who ranged in age from 4 years to 6 years (mean age = 4 years 9 months) met the criteria to be included in the project: (1) inclusion of at least six sounds across three manner categories of sound production, as determined by performance on the Goldman-Fristoe Test of Articulation (Goldman & Fristoe, 1988), (2) normal hearing, (3) normal history of organic or motor disorders, (4) normal verbal abilities within normal limits, (5) between the ages of 42 and 78 months, and (6) reside in a monolingual English-speaking family. Table 1 describes the participants with regard to age, sex, and phonetic abilities within normal limits; (5) between the ages of 42 and 78 months.

METHODS (Cont.)
A combined single- and double-rule of multiple baseline across the entire rule set was also used to investigate the efficacy of the multiple opposition approach. Two error patterns were selected for intervention for each child. Half of the children received treatment on the first pattern while the other half of the children remained in an extended baseline until treatment was completed on the first pattern with the first group of children. After 21 treatment sessions, or 96 generalization to the target behaviors in the trained patterns was achieved, treatment switched to the second pattern for the first group of children and the second group of children began treatment on their first error pattern. Treatment consisted of the constructive oppositions for each error pattern which resulted in a total of 20-25 stimuli per pattern trained.

RESULTS
Table 2 contains the main baseline and final treatment performance for each child trained within the two behavior patterns (i.e., B1 and B2) for each of the 14 children. The statistical significance between these two scores is also indicated, as well as the child’s response level on each target at the end of treatment (i.e., imitation or spontaneous). Table 3 summarizes the results for each of the two behavior trains in terms of number of sounds that demonstrated significant improvement and the number of sounds that reached the spontaneous level of production by the end of treatment. As indicated in this table, the majority of sounds showed significant improvement in 21 treatment sessions or less. Specifically, 77% (37/48) of the sounds produced in the treatment behavior 1 achieved statistical significance. In Behavior 2, 37% (18/49) of the sounds demonstrated improvement that was statistically significant. Further, the majority of target sounds reached the spontaneous level of production by the end of treatment. For Behavior 1, 58% of the sounds were at the spontaneous level and 90% of the sounds in Behavior 2 were at the spontaneous level.

DISCUSSION
These results indicated that the multiple opposition treatment model resulted in significant changes on treated as well as untreated aspects of the child’s sound system. These changes occurred in a relatively short time period of 23 to 42 treatment sessions.

REFERENCES