Cross-language Transfer Following Treatment in Preschool Language Delay

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Background

- A key clinical issue in the treatment of bilingual children with communication disorders is the potential for generalization or transfer of gains from a treated to an untreated language.
- For monolingual children with language impairment, generalization across settings or targets cannot be assumed. Similarly, for bilingual children with language impairment, explicit training may be needed to support cross-linguistic transfer (Kohnert & Derr, 2004; Kohnert et al., 2005). On the other hand, treatment focused on more-conceptual aspects of communication, versus specific linguistic forms may be readily transferred across languages and communicative contexts.
- To date, empirical evidence to address cross-linguistic generalization in bilingual children with language impairment is highly limited (Kohnert & Medina, in press).

Research Question

Do vocabulary and gestural skills taught in a child’s first language (L1, Vietnamese) in a home setting transfer to his second language (L2, English) in a school setting?

Predictions

- Language-specific gains will be evident. That is, treatment in L1 will result in improved outcomes in Vietnamese; treatment in L2 will result in improved performance in English.
- Communicative gestural target will transfer to the L2 (i.e., English at school) with minimal to no explicit training since it would not be bound to a specific language.
- Explicit training will be needed to promote L1 to L2 transfer of vocabulary given that Vietnamese & English are highly contrastive languages.

Participant

- “Nam”, age 3;4, diagnosed with a language delay.
- Spoke Vietnamese (L1) at home with <50 words in his inventory that were mainly nouns.
- Received early intervention for 8 months at home with mother interpreting to Vietnamese.
- Recently transitioned into preschool special education 2 days/wk, 2.5 hrs/day, with 20 min/wk of language therapy and 15 min/wk of occupational therapy.
- Used 5 functional words in his L2 (English) and could name letters, colors, and shapes.

Design

- Multiple baseline across settings: home in Vietnamese (L1) and school in English (L2).
- Target 1 (Vocabulary): Comprehension & production of 4 unfamiliar actions (running, swimming, reading, drawing).
- Target 2 (Gesture): Comprehension of a head-shake gesture as measured by a look in the direction of the head shake and a 1-sec pause.
- Inter-rater reliability on 15% of sample: 97 – 100%.

Intervention

- Four 1-hour sessions, 2 sessions/wk for 2 weeks, conducted in Vietnamese (L1) in the home by a Vietnamese-English bilingual SLP and Nam’s mom.
- Eight 20-minute sessions, 2 sessions/wk for 4 weeks conducted in English (L2) either in the classroom or in a quiet room at school by Nam’s SLP and paraprofessional.
- Word learning strategies included focused stimulation and delayed imitation (Ellis Weismer et al, 1993). Target 2, head-shake comprehension, was incorporated in all activities as feedback.
- Activities included picture matching, pretend play, and connecting action words with family photographs.
- Stimuli included 3 different pictures depicting each target action (total of 12 pictures) to promote conceptual generalization.

Results


Social Validity

- Nam’s mother completed an exit survey indicating therapy goals were “very appropriate,” therapy activities and strategies were “very effective” and could “easily” be implemented into daily routines.
- The family would participate in another research study. They were “pleased with the results.”

Discussion

- This study was an initial step in examining differential patterns of cross-linguistic transfer across communicative levels and expressive and receptive modalities.
- Consistent with predictions, the communicative gesture target spontaneously transferred across settings, while vocabulary required explicit training to be learned in a different language and setting.
- Continued research is needed to further investigate transfer constraints for bilingual children during language intervention.

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References