SLI in bilinguals: Comparing COST-tasks to a standardized test

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Abstract

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Aiming to go beyond measures specific to only one language for identifying specific language impairment (SLI) in bilinguals, complex syntactic and semantic structures, employed in sentence repetition (SR-T) and Exhaustive wh-questions (EX-T), have become promising areas of investigation (Schulz & Roeper, 2011; Hamann 2012; Armon-Lotem et al., in press). However, it is equally important to evaluate available standardized tasks for monolingual and bilingual children (i.e. German LiSe-DaZ, Schulz & Tracy 2011) as to their sensitivity to SLI in mono- and bilingual children. The present paper compares the results of the EX-T and SR-T to those of the LiSe-DaZ.

The EX-T examines the comprehension of exhaustive wh-questions (see (1) - (2)). Cross-linguistically, exhaustivity in multiple wh-questions is mastered around age 6 by typically developing monolinguals (MoTD), but not by monolingual children with SLI (MoSLI) (Schulz 2010). Further studies suggest that exhaustivity in multiple wh-questions might be a promising marker for bilingual SLI (BiSLI) (Schulz in press).

SR-tasks comprise cross-linguistically complex structures, such as object relatives and object questions, and language-specific structures, sentence bracket (3) or topicalization (4) in German (Hamann et al. 2013), and have been found to reliably identify SLI (Conti-Ramsden et al. 2001, Marinis & Armon-Lotem in press).

The German LiSe-DaZ includes morpho-syntactic areas affected by SLI in German (subject-verb-agreement, verb position, case) and tests for mastery of Wh-movement with the comprehension of questions.

We compare monolingual and bilingual German children's performance in the three tasks and investigate task sensitivity to SLI. Six groups of 5 children each were tested: MoTD (5;6 - 6;4), unimpaired bilingual children with different first languages (Arabic (BiTD-A, 7;6 -

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8;9), Portuguese (BiTD-P, 5;9 - 8;3) and Turkish (BiTD-T, 5;8 - 8;1), MoSLI, (5;8 - 7;4) and BiSLI (5;7 - 8;3 with Arabic and Turkish as L1s).

In the SR-T monolingual and all bilingual TD-groups performed equally well, whereas both SLI-groups had significantly less correct repetitions than any of the TD-groups, see figure 1. In contrast, the EX-T showed significant differences between Mo-TDs and Mo-SLI in the multiple questions, but not between the BiTD and the BiSLI group (figure 2 for paired wh-questions). The LiSe-DaZ identified monolingual SLI very reliably, but the classification of bilingual children did not correspond in all cases to the diagnostic they had received by speech language therapists.

Surprisingly, all groups of TD children cope equally well with the SR-T, which sharply distinguishes the TD groups from the SLI groups, whereas the EX-T identifies monolingual SLI, but seems problematic for the identification of SLI in bilinguals, at least for the age range investigated here in our limited data set.

A relevant question to discuss is whether a standardized test with norms for bilingual children may identify Bi-SLI as effectively as the SRT and why the EX-T seems problematic.

Examples:

(1) Paired exhaustive wh-questions: **Who** is reading **what**?

(2) Triple exhaustive wh-questions: **Who** is giving **what** to **whom**?

(3) Der Prinz hat die Prinzessin umarmt

The prince has the princess hugged

The prince has hugged the princess

(4) Den Arzt fotographiert der Bauer gerne

The (acc) doctor photographs the farmer volontarily

The farmer likes to hug the doctor

Figure 1. Significant differences (Mann-Whitney-Test) for all p: .01 < p < .05

Figure 2. Significant differences (Mann-Whitney-Test)for all p: p< .01

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