
Narrative skills in TD and SLI bilinguals with home language Russian and L2 Hebrew or German

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Abstract

The study compares the narrative macrostructure in TD and SLI preschool bilinguals in order to establish the SLI narrative profile and to find out which components of the macrostructure are vulnerable for SLI children. For this purpose oral narratives in L2 (German or Hebrew) were elicited via LITMUS-MAIN Multilingual Assessment Instrument for Narratives. The data were elicited from the age-matched TD and SLI bilinguals: 11 TD Russian-Hebrew bilinguals at age 75.6 months, an average of exposure to L2 of 35.6 months and 7 SLI children at age 74.3 months, an average of exposure to L2 of 42.8 months). All children underwent non-verbal IQ and language proficiency tests.

Previous findings (with LITMUS-MAIN) showed, that children with SLI show different profiles in their narrative macrostructure, e.g. Skerra et al. (2013) study of age-matched 20 TD and 10 SLI children between 5;0 and 6;11 showed significant difference in story structure between these two groups (Wilcoxon-Rank-Sum Test $p=.044$). Ianthi et al. (under review) results targeted monolingual and bilingual age-matched TD and SLI children between 5;0 and 10;0. The results of this study provided evidence, that TD and SLI groups differ in microstructure; furthermore, the authors suggested that Telling-Retelling scheme might properly identify bilingual SLI. Finally, Walters et al. (under review) found that in the retold stories from 19 TD and 12 SLI English-Hebrew bilinguals from 5;4 to 6;8, the two groups show a clear different pattern in the microstructure, but not in the macrostructure.

The present study builds upon the previous research and broadens the languages investigated and the population. It performs the fine-grained macrostructure analyses of the retellings in L2 Hebrew or German including three components: story structure, story complexity and internal state terms. Given, that macrostructure exhibits a language-universal character, the two different L2 are compared. Based on the previous studies, the significant differences between the two groups are predicted in the most language-independent component of the macrostructure, the story complexity.

Our theoretical framework for the design of the pictorial stimuli combined the three core elements of the hierarchical story grammar model (Stein & Glenn, 1976) – Goal, Attempt and Outcome – in three sequential, interlinked episodes each containing one Goal, Attempt and Outcome. The assessment of the narrative complexity, was based on Westby (2005) binary decision tree. Additionally to the analyses of three complexity levels, the present study included a separate comparison across groups and languages of the complete episodes with all GAO components (McCabe & Peterson 1984). Furthermore, to avoid the possible shortcoming of this method and to reduce an artifact of the stimuli used for the evaluation of story complexity, the four levels were mapped on one ordinal variable and the analyses

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was performed separately for children producing either no elements of macrostructure; A, O and the combination of both; G, GA or GO; and the full GAO sequence. Finally, the total sum of Internal State Terms (IST) tokens was calculated in narratives, reflecting awareness of intentionality and goal-directed behavior of protagonists. ISTs included words denoting different internal states, like perceptual state terms, e.g. see, hear, feel, smell; physiological state terms, e.g. thirsty, hungry, tired; consciousness terms, e.g. awake, asleep; emotion terms, e.g. sad, happy, angry; mental verbs, e.g. want, think, know; linguistic verbs, e.g. say, call, ask were included. This measure considered all produced tokens and it not restricted to IST as initiating and reaction events only.

The results show that the macrostructure produced by children with SLI contained less story grammar components. Also the number of the episodes containing Goals was significantly lower in SLI children. No significant difference between the two groups was found for IST. The results suggest that one should provide a differentiated analyses of the different components of macrostructure in order to accurately identify bilingual SLI.

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