

# The role of child-directed speech, linguistic, and cognitive skills in shaping bilinguals' narratives

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**Background:** Child-directed speech (CDS) plays a crucial role in all stages of language acquisition according to linguistic theories. In many studies, CDS is considered as input (e.g., Czapka et al., 2022). While existing research has predominantly emphasized the impact of input on lexical and morphological aspects, less is known on its influence on narrative language. In this study, we use input together with cognitive and linguistic skills to investigate their contribution to oral narrative macrostructure in Greek-German bilinguals. Narrative language serves as an informative tool as it is analyzed in two dimensions: microstructure (lexical and morpho-syntactic skills) and macrostructure (higher-level organizational skills). We use Greek-German, since it is a less systematically investigated language pair with interesting typological differences, i.e., Greek has richer morphology and less complex syllabic structure than German, to investigate:

RQ1) whether input affects narrative macrostructure, and

RQ2) which linguistic (lexicon, morpho-syntax, phonology) and cognitive processing (i.e., RAN) skills affect macrostructure.

**Methods:** Twenty-nine bilingual children at the end of Grade 1 (M-age: 87.42 months) participated in the study. They were tested in both languages with cognitive skills using Rapid Automatized Naming Task (RAN), and with linguistic skills using phonological awareness test and picture-based oral narrative production using the Multilingual Assessment Instrument for Narratives (MAIN, Gagarina et al., 2019). Narratives were analyzed in terms of microstructure, i.e., lexical diversity (with Number of different words (NDW)) and morpho-syntax (with Mean Length of Utterance (MLU)) and macrostructure (operationalized as Story Structure (SS) and Story Complexity (SC)). Information on input was obtained from parental questionnaires (PaBiQ, Tuller 2015), measured as the sum of exposure at home.

**Results:** Generalized Linear (Mixed) models revealed that input affected L1 Greek macrostructure in SS ( $p < 0.001$ ) but not SC. L2 German narrative macrostructure was not affected by input. Regarding RQ2, RAN affected SS in Greek ( $p < 0.05$ ) and NDW affected SS ( $p < 0.001$ ) in German. SC was not affected by either linguistic or cognitive skills. Phonological awareness did not influence either SS or SC in both languages.

**Discussion:** Findings add to the scarce evidence on factors shaping narrative language and suggest that both input and cognitive skills strongly affect the heritage narrative production, while lexicon affects the dominant narrative production in primary school bilinguals.

## References:

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