
Sentence Repetition as a Tool for Measuring Working Memory in SLI

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Abstract

Research suggests that a sentence repetition task is a useful tool for assessing children with Specific Language Impairment (SLI). In particular, sentence repetition implicates difficulties in working memory: children with SLI experience deficits in working memory and language acquisition. Accordingly, a discussion with regard to what the task evaluates has developed in the relevant literature. Some researchers argue that a repetition task is only a test of auditory short-term memory (Karmiloff & Karmiloff-Smith, 2001), while others suggest that children's performance on sentence repetition tasks can inform us about their language abilities (Lust et al., 1996). A third line of research claims that sentence repetition may tap short-term memory and information processing abilities as well as grammatical knowledge (Tomblin et al., 1992; Betz et al., 2002).

The present study compared the performance of Greek Cypriot children with SLI with that of typically developing children. The goals of the study were:

- (i) to investigate whether there are quantitative and qualitative differences between children with SLI and their peers with typical language development on sentence repetition abilities, and
- (ii) to explore whether children's sentence repetition performance correlates with their performance on language and nonverbal IQ assessment measures.

The test consists of 24 items exploring the imitation of subject and object relative clauses, embedded *oti* 'that'-clauses, adjunct *giati* 'because'-clauses, negative *den*-sentences, and subjunctive *na*-clauses, with an equal number of each type adopting Redmond's (2005) suggestion that the stimuli of sentence repetition task should be complex in order to avoid ceiling performance. This tool was specifically designed for Cypriot Greek and is as such a precursor for the LITMUS sentence repetition tool designed in COST Action IS1208. The major differences will be presented in the talk.

Two groups each of children with typical language development (TLD) and children with SLI were tested, with a total of 38 participants and an attempt for gender balance (Table 1): 10 children with TLD and a mean age of 5;8 years;months matched with 9 children with SLI (5;6) in the younger group and 12 children with TLD and a mean age of 7;10 matched with 7 children with SLI (7;8) in the older group.

Data analysis showed that the sentence repetition task yielded significant differences in performance of children with SLI compared to their typically developing peers. With regard

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to the nature of the deficit, the findings from children's performance highlight the relation between a task that involves working memory with performance on a battery of language assessment tests.