

## Subject-Verb Agreement in Greek SLI: Evidence from production and grammaticality judgment

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**Background:** A number of studies have observed impairments in the production and comprehension of subject-verb agreement by children with Specific Language Impairment (SLI) (Kunnari et al, 2011; Blom, Vasik & de Jong, 2013; Lalioti, Stavrakaki, Manouilidou, & Talli, 2016, among others). These impairments have been attributed either to impaired grammatical representations (Rice & Wexler, 1996; Clahsen, Bartke, & Goellner, 1997) or the linguistic input and surface properties of a language (Leonard, Eyer, Bedore, & Grela, 1997, Lalioti et al., 2016). As far as Greek is concerned, selective difficulties, particularly in second person singular and plural (Clahsen & Dalalakis, 1999; Tsimpli, 2001) have been reported in Subject-Verb agreement production by children with SLI. Regarding the Subject-Verb agreement comprehension by SLI children, a recent study has showed that SLI school-age children performed significantly lower than their CA (chronological age) matched children in a Grammaticality Judgment Task, in grammatically correct sentences (Lalioti et al., 2016).

**Method:** Three groups of pre-school children participated in the study; 6 children with SLI (mean age 6;3); 6 typically developing (TD) children (mean age 5;2) matched on language ability (LA) to the SLI group on the basis of scores of receptive vocabulary test for Greek children, Peabody Picture Vocabulary Test-Revised (PPVT) (Dunn & Dunn, 1981; for Greek: Simos, Sideridis, Protopapas, & Mouzaki, 2011); 6 TD children (mean age 6;1) matched on chronological age (CA) to the SLI group. Testing S-V production comprised an act out elicitation task which would provide 6 elicited types of S-V agreement types: 1 person singular, 1 person plural, 2 person singular, 2 person plural, 3 person singular, 3 person plural. S-V agreement comprehension was examined through a Grammaticality Judgment Task consisted of 80 experimental sentences. First and second persons in both singular and plural were examined; person and number violations were applied in ungrammatical sentences.

**Results:** Overall the performance of SLI group in both S-V agreement production and comprehension tasks was not significantly lower than the two TD [for the Grammaticality Judgment Task,  $F(2, 15) = 1.896$ ,  $p = 0.184$ ]. Moreover, in the Grammaticality Judgment Task, the grammaticality of a sentence did not affect significantly the performance between the three groups [for grammatical sentences,  $F(2, 15) = 0.080$ ,  $p = 0.924$ , for ungrammatical sentences,  $F(2, 15) = 2.567$ ,  $p = 0.110$ ]. The performance of all the three groups in S-V agreement production was at ceiling.

**Discussion:** Our findings regarding S-V agreement production contradict with the findings of Clahsen & Dalalakis (1999) and Tsimpli (2001) who studied the spontaneous speech of pre-school SLI children. The differences could be attributed to the different experimental methods employed. Regarding the low performance of all the three groups in the Grammaticality Judgment Task both in all the experimental sentences and in grammatical and ungrammatical sentences separately, it could be mentioned that a dissociation between S-V agreement production and comprehension is observed. Although grammaticality judgements, as an experimental tool brings interpretation complexities (Schuetze & Sprouse, 2014), it has been reported that

metalinguistic skills, which are required in a Grammaticality Judgment Task, are associated with age and school education, a fact which could affect comprehension results through a Grammaticality Judgement Task (Cairns, Schlisselberg, Waltzman, & McDaniel, 2006).

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