

Poster presentation

Comprehension of past tense marking in Greek developmental dyslexia: language impairment or processing deficit?

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from International Society on Brain and Behaviour: 2nd International Congress on Brain and Behaviour Thessaloniki, Greece. 17–20 November 2005

Published: 28 February 2006

Annals of General Psychiatry 2006, **5**(Suppl 1):S246 doi:10.1186/1744-859X-5-S1-S246

Background

The present study investigated whether Greek Dyslexic children with impaired phonology manifest additional deficits in morphological processing. More particularly, comprehension of past tense marking was investigated.

Materials and methods

A group of 10 phonologically impaired dyslexic children (aged 7.6–9) were presented a grammaticality judgment task (The Perfective Past Tense Test, Clahsen and Stavrakaki, 2004) which included both existing and novel verbs (with a total of 50 verbs, divided into different subclasses). The category of existing verbs included verbs with sigmatic past tense forms. Sigmatic Past Tense forms are produced by the adjustment of the aspectual markers to the verb stem and in some cases additional phonological changes, e.g. *milo-milisa*. On the other hand, non-sigmatic past tense forms require morphophonological alterations without the aspectual markers (e.g. *gherno-eghira*).

In the case of existing verbs perfective past tense form was taken as correct, whilst in the case of novel verbs the scoring was based on the distinction between sigmatic vs. non-sigmatic past tense forms. The scores of the Dyslexic Group were compared to the scores of three control groups, one younger (5.9–6.3), one matched to the dyslexic group on chronological age (7.8–9.2) and an adult group (24.1–26.8).

Between groups comparisons were conducted by using Analysis of Variance (ANOVA) for the total scores and t-tests for the individual subclasses. As far as the generalization properties of sigmatic vs. non-sigmatic past tense forms for each participant group are concerned, non-parametric procedures were administered, such as the Wilcoxon test.

Results

Dyslexic children were found to have particular difficulties with non-sigmatic (irregular-like) existing verbs, which was followed by overapplication of the aspectual markers in novel verbs which rhymed with the existing non-sigmatic ones. They were also proved to use to a less extent sigmatic past tense forms for verbs which rhymed with existing sigmatic ones and novel verbs which do not rhyme with any existing verb.

Discussion

Dyslexic children manifested sensitivity in the morphophonological changes of irregular verbs, something which can be attributed to their phonological deficiencies. By contrast, their performance on existing sigmatic verbs was ceiling. The results concerning to novel verbs are more compatible with the dual route theory of past tense acquisition and processing, since the subjects of this research were found to use the aspectual marker -s as a default and selectively generalized non-sigmatic past tense forms.

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