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Past tense in children with focal brain lesions

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Introduction

Recent studies on children with focal brain lesions (FL) have compared their performance to that of typically developing (TD) children and examined potentials for rehabilitation (Marchman et al. 2004). The present study examines the production of past tense for existing and novel verbs by Greek FL children in comparison to TD children matched on chronological age (CA) and addresses the question of recoverability in linguistic abilities of children with FL. Greek distinguishes between a perfective and an imperfective past tense, as tense interacts with aspect (perfective vs. imperfective) (Holton et al., 1997). The imperfective past is formed with the present tense stem (e.g. graf-o ‘I write’, egraf-a, ‘I was writing’) and thus it is morphologically simpler than the perfective one which can be either sigmatic (regular) with a segmentable affix (-s), egrap-s-a ‘I wrote’, or non sigmatic (irregular), eplyn-a ‘I washed’.

Method

So far three boys and one girl with FL (aged: 8;5, 8;5, 13;2, 6) without history of seizures have been tested. They all suffered a post-natal stroke resulting in a left FL for the three of them and a right FL for the 6-year-old child, as shown by MRI. The performance of those individuals on past tense is compared to that of 28 aged matched TD children and 10 adults, as it is reported by Stavrakaki & Clahsen (2009) who used exactly the same task. Specifically, an elicited production task, supported by pictures and designed to elicit sigmatic and non-sigmatic past tense forms, was employed.

The test materials included:

- Existing sigmatic and non-sigmatic verbs
- Novel sigmatic and non-sigmatic rhymes
- Novel non-rhymes

Results

The children’s responses were classified as (i) sigmatic, (ii) non-sigmatic and (iii) other. Other responses included imperfective past tense forms (exclusively for participants with FL and mostly for TD population).

The 13 year-old FL child showed typical performance in most cases. FL and TD participants performed better on existing sigmatics than non-sigmatics. The findings also revealed a strong
tendency for reliance on imperfective past tense forms by the younger FL individuals and thus showed that these children avoided the morphological complexity of the perfective past tense by employing a simpler verb form. That was evident especially in the novel non-rhymes condition.Remarkably, strong reliance on imperfective forms was also attested in very young TD children (aged 3) (Stavrakaki & Clahsen, 2009). See Figure 1:

**Discussion**

We suggest that the three younger FL participants follow the typical path for perfective past tense acquisition with some delay and interpret the reliance on imperfective forms as indication of immature grammar.

**References**

