

Referential forms in ADHD Children's Narrative

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In this work, we investigated the pattern of referential form choice in Attention deficit and hyperactivity disorder (ADHD) children's narratives compared with narratives produced by normal controls. ADHD has been associated, among other symptoms, with distinct language behavior. Their language has been described as presenting errors such as "ambiguous references, disfluencies" (Tannock, 2006). Those problems have been related to inhibition disorders and a tendency to disregard the needs of others in structuring discourse. Although these are probably reasonable explanations, the underlying causes of such patterns are not well defined in current literature. This work uses a widely applied technique – narrative production – to tap into structural linguistic aspects that may lead to the mentioned difficulties. One such linguistic aspect is the choice of referential form. In discourse, there are different referential forms to choose from, ranging from full NPs to pronouns and null pronouns, the latter in pro-drop languages like Portuguese. This choice has been linked to working memory processes (Almor, 1999). Thus, conditions associated to working memory impairment are likely to be associated with an altered pattern in referential form use.

To investigate this hypothesis, we collected a corpus of narratives by 12 ADHD children and 18 normal developing controls matched by age (from 9 to 13) and schooling, all native speakers of Brazilian Portuguese. Each child produced a set of 4 (four) narratives, related to different tasks. Each referential form found in the narratives was counted and categorized. Results show that ADHD children, use significantly more pronouns and null pronouns than normal controls [$\chi^2(1)$, $p < 0.001$]. Furthermore, ADHD children introduce more new referents with pronouns than the other children. Compare the examples below (adapted to English). All referential expressions are marked in bold:

Normal developing child:

Chico Bento sees **the owner** of a **guava tree** sleeping, **he** is planning to get some **guava**, **he** goes silently, **he** jumps to get the **guava**, **he** is grabbed by a cane and can't go on and **the guy** seems to be awoken and throws **him** away with the **cane**.

ADHD child:

The boy was trying to get **some fruits** from **the tree** and **he** didn't let **him** because **he** was sleeping, because if **it** falls on his head/ **the fruit**... **He** was sleeping, **he** cut the ladder that **he** tried and then **he** tried.

We attribute this difference to the fact that referential forms are probably chosen according to their discursive saliency and accessibility. Accounts like Almor's (1999) Informational Load Hypothesis (ILH) explain anaphor processing as reflecting a balance between discourse function and processing cost. Pronouns are semantically less loaded than full nominal expressions. Therefore, pronouns are more frequently used when reference is made to entities already salient in discursive memory. When the working memory processing component is impaired, resources are scarce to activate and maintain more costly lexical-semantic information, so the lighter forms – pronouns – tend to be used when more informative nominal expressions would be preferable, leading to apparent disregard to listeners' needs.

References

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