

Recognition of gated verbs by children with Grammatical-Specific Language Impairment: Effects of inflection and frequency

Chloe R. Marshall, Heather K.J. van der Lely*

UCL Centre for Developmental Language Disorders and Cognitive Neuroscience, Division of Psychology and Language Sciences, University College London, 4th Floor, 123-126 Gray's Inn Road, London WC1X 8WD, UK

Received 28 November 2006; received in revised form 22 October 2007; accepted 23 October 2007

Abstract

A common feature of language disorders, particularly in English, is an impairment in inflectional morphology. One view claims that this deficit is caused by impaired speech processing and resulting impoverished phonological representations. We investigated the accuracy of spoken word recognition in Specific Language Impairment (SLI) using a successive forward gating paradigm, with target verbs manipulated for frequency and past tense inflection. Children with Grammatical-SLI were compared to age and language controls. We scored responses according to (1) proportion of gates to the first correct response, (2) proportion of gates to the first of three consistently correct responses. G-SLI children generally performed at the same level as age and vocabulary controls, although worse than age controls on uninflected verbs with respect to the second criterion, indicating that they activated the correct word at the same point, but took longer to reach a consistent response. Low frequency and inflection of the target word did not disadvantage G-SLI children to a greater extent than any of their controls. These results do not support the hypothesis that G-SLI children's morphological impairment is caused by poor acoustic-phonetic processing.

© 2008 Elsevier Ltd. All rights reserved.

Keywords: SLI; Gating; Inflectional morphology; Lexical access

*Corresponding author. Tel.: +44 20 790 51292; fax: +44 20 790 51224.
E-mail address: h.vanderlely@ucl.ac.uk (H.K.J. van der Lely).

1. Introduction

Children with Specific Language Impairment (SLI) have significantly impaired language acquisition in the absence of any obvious cause, such as hearing loss, low non-verbal IQ, motor difficulties or neurological damage (Leonard, 1998). Production of syntactically simple sentences, errors in inflectional morphology, poor phonological abilities and delayed lexical acquisition are characteristic of SLI (Bishop, 1997; Leonard, 1998). However, the nature of the underlying deficit is vigorously debated (Joanisse & Seidenberg, 1998; Leonard, 1998; van der Lely, 2005). One hypothesis is that it is specific to grammar itself, affecting either the tense system, relations between different syntactic constituents, or complex grammatical structures more generally (Jakubowicz, 2003; Rice, Wexler, & Cleave, 1995; van der Lely, 1998, 2005). An alternative hypothesis is that children with SLI have impoverished phonological representations, and that this impacts on their acquisition of words, morphology and sentence structure. This phonological deficit is in turn claimed to be caused by an underlying deficit in processing the rapid temporal transitions characteristic of speech or by a more general processing deficit (Joanisse & Seidenberg, 1998; Kail, 1994; Leonard, 1998; Tallal & Piercy, 1974).

The issue of what underlies SLI is not easy to resolve because the range of language impairments and their level of severity, stage of resolution and degree of compensation all vary greatly between individuals. Because SLI is highly heterogeneous, a single explanation is unlikely to be able to account for the broad range of impairments, and this heterogeneity makes it difficult to test linguistic and cognitive models of the disorder. One way of dealing with the heterogeneity is to identify subgroups of SLI children whose members share a common profile of linguistic strengths and weaknesses. Van der Lely and her colleagues have identified a group of children, termed Grammatical (G)-SLI, whose difficulties with language appear to be confined to the core aspects of structural grammar—syntax, morphology and phonology (van der Lely, 1996a, 1997a, 1997b, 1998, 2005; van der Lely, Rosen, & McClelland, 1998; van der Lely & Stollwerck, 1997).

Crucial to the characterisation of G-SLI are (1) the persistence of the deficit over the age of 9, and (2) the particular pattern of grammatical impairment. The Computational Grammatical Complexity Hypothesis, developed to account for G-SLI, claims that the linguistic deficit lies in the formation of complex hierarchical structures within syntax, inflectional morphology and phonology (Marshall, 2006; Marshall & van der Lely, 2007a, 2007b; van der Lely, 2005). Within syntax, particular difficulties are evinced when syntactic dependencies involving ‘movement’ are required, such as the use of subordinate clauses (van der Lely et al., 1998), wh-question formation (van der Lely & Battell, 2003), the assignment of thematic roles in passive sentences (van der Lely, 1996b). In terms of morphology, difficulties are with creating regular inflected, and hence hierarchically complex, forms. G-SLI children omit past tense inflection at high rates (Marshall & van der Lely, 2006; van der Lely & Ullman, 2001), judge bare stem forms as acceptable in a past tense context (van der Lely & Ullman, 1996) and ungrammatically produce regular plurals inside compounds and derived forms (Marshall & van der Lely, 2007a; van der Lely & Christian, 2000). Although their articulation is intelligible, initial work has revealed subtle phonological deficits in hierarchical structure, affecting consonant clusters and words containing unfooted syllables (Gallon, Harris, & van der Lely, 2007; Marshall, 2006; Marshall, Harris, & van der Lely, 2003). In contrast, derivational suffixation is unimpaired in these children (Marshall & van der Lely, 2007a), and they are able to use referential

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات