

Judgment of functional morphology in agrammatic aphasia[☆]

Michael Walsh Dickey^{a,b,*}, Lisa H. Milman^{a,b,e},
Cynthia K. Thompson^{a,b,c,d}

^a*Aphasia and Neurolinguistics Research Laboratory, Northwestern University, 2240 Campus Drive,
Evanston, IL 60208-3540, USA*

^b*Department of Communication Sciences and Disorders, Northwestern University, 2240 Campus Drive,
Evanston, IL 60208-3540, USA*

^c*Department of Neurology, Northwestern University, 2240 Campus Drive, Evanston, IL 60208-3540, USA*

^d*Cognitive Neurology and Alzheimer's Disease Center, Northwestern University, 2240 Campus Drive,
Evanston, IL 60208-3540, USA*

^e*Department of Speech, Language and Hearing Sciences, The Ohio State University, 1070 Carmack Road,
Columbus, OH, 43210, USA*

Received 26 December 2006; received in revised form 28 August 2007; accepted 31 August 2007

Abstract

Individuals with agrammatic Broca's aphasia show deficits in production of functional morphemes like complementizers (e.g., *that* and *if*) and tense and agreement markers (e.g., *-ed* and *-s*), with complementizers often being more impaired than verbal morphology. However, there has been comparatively little work examining patients' ability to comprehend or judge the grammaticality of these morphemes. This paper investigates comprehension of complementizers and verb inflections in two timed grammaticality-judgment experiments. In Experiment 1, participants with agrammatic Broca's aphasia and grammatical-morphology production deficits ($n = 10$) and unimpaired controls ($n = 10$) heard complement clause sentences, subject relative clause sentences, and conjoined sentences. In Experiment 2, the same participants heard sentences with finite auxiliaries, sentences with finite main verbs, and sentences with uninflected verbs. Results showed above-chance accuracy in aphasic participants' judgments for complementizer sentences in Experiment 1, but chance performance for verb inflections in Experiment 2. This pattern held regardless of whether the verb

[☆]This research was supported by the National Institutes of Health, under Grant R01-DC01948 to Cynthia K. Thompson. An earlier version of this work was presented as Dickey, Milman, and Thompson (2005).

*Corresponding author. Now at Department of Communication Science and Disorders, University of Pittsburgh, 4032 Forbes Tower, Pittsburgh PA 15260, USA. Tel.: +1 412 383 6721; fax: +1 412 383 6555.

E-mail address: mdickey@pitt.edu (M.W. Dickey).

inflections were affixes or free-standing auxiliaries. Implications of these results for theories of agrammatic morphological impairments, including feature underspecification accounts [Wenzlaff, M., & Clahsen, H. (2004). Tense and agreement in German agrammatism. *Brain and Language*, 89, 57–68; Burchert, F., Swoboda-Moll, M., & De Bleser, R. (2005a). Tense and agreement dissociations in German agrammatic speakers: Underspecification vs. hierarchy. *Brain and Language*, 94, 188–199] and hierarchical structure-based accounts [Friedmann, N., & Grodzinsky, Y. (1997). Tense and agreement in agrammatic production: Pruning in the syntactic tree. *Brain and Language*, 56, 397–425; Izvorski, R., & Ullman, M. (1999). Verb inflection and the hierarchy of functional categories in agrammatic anterior aphasia. *Brain and Language*, 69, 288–291], are discussed.

© 2007 Elsevier Ltd. All rights reserved.

Keywords: Aphasia; Agrammatism; Grammatical morphology; Functional categories; Perception; Grammaticality judgment

1. Introduction

One of the hallmarks of agrammatic-type Broca's aphasia is a deficit in the production of functional morphology. Both free-standing function words and bound morphemes used to mark grammatical functions are impaired in this population, crosslinguistically. For example, nominal functional morphemes such as possessive “-s” and the definite determiner “the” are often missing from aphasic individuals' elicited or spontaneous speech (Avrutin, 1999; Berndt & Caramazza, 1980; Goodglass, 1976; Schwartz, Saffran, & Marin, 1980). Verbal inflections such as subject–verb agreement (marked in third-person singular present-tense “-s” in English) and tense marking (such as English past-tense “-ed”) are often omitted or incorrectly substituted in agrammatic individuals' productions, as are auxiliaries such as “is” or “was” (Benedet, Christiansen, & Goodglass, 1998; De Villiers, 1978; Pettit, McNeil, & Keith, 1989). Similarly, subordinating conjunctions or complementizers such as “if,” “that,” and “whether” are systematically missing from agrammatic individuals' speech (Friedmann, 2001; Milman, Dickey, & Thompson, *in press*). These patterns appear to hold not only for English-speaking agrammatic aphasic individuals but for aphasic speakers of other languages as well (Benedet et al., 1998; Friedmann, 2001; Hagiwara, 1995; Menn & Opler, 1990; Wenzlaff & Clahsen, 2004, 2005).

However, recent work has shown that not all functional morphemes are equally likely to be impaired in aphasia. Bound and free morphemes associated with verbal and clausal syntactic functions appear to be particularly vulnerable in agrammatism. More specifically, complementizers and tense marking are especially likely to be impaired (Friedmann, 1998, 2001; Friedmann & Grodzinsky, 1997). In contemporary linguistic theory, these functional morphemes are associated with distinct functional projections in a clause's syntactic tree, as illustrated in Fig. 1.

Complementizers are associated with the highest syntactic projection in the clause, CP (or Complementizer Phrase), while tense marking (as well as subject–verb agreement) is associated with an intermediate syntactic projection, here labeled TP (for Tense Phrase). While there is debate regarding whether there are additional syntactic projections besides TP below CP (Bobaljik & Thráinsson, 1998; Chomsky, 1989, 1995, 2001; Cinque, 1999; Ouhalla, 1990; Pollock, 1989), there is broad agreement that TP-type projections (responsible for licensing inflectional morphology) lie in between CP and VP. VP is the lowest syntactic projection in a clause, and it is responsible for introducing the verb and its

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