Production of nouns and verbs in picture naming and narrative tasks by Chinese speakers with aphasia

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Introduction

The processing of nouns and verbs has been an area of intense interest among psycholinguists for decades (see review by Vigliocco et al., 2010), for the obvious reasons that they are two major word classes across languages and convey the most basic information in communication. Word class effects are often reflected in response latency and/or accuracy in naming tasks. However, single word production does not resemble daily communication in which linguistic contexts may facilitate word finding. Previous studies directly comparing lexical retrieval betweennaming and narrative tasks have obtained mixed results (e.g. Berndt et al., 2002; Pashek & Tompkins, 2002), perhaps partly due to the fact that nouns and verbs were rarely matched for relevant psycholinguistic variables. This study minimized the influence of confounding factors and employed neuropsychological data to examine retrieval of nouns and verbs in confrontation namingand connected speech.

Method

The participants were 19 Cantonese-speaking adults with anomic aphasia and 19 age-, gender- and education-matched controls. Production of nouns and verbs was obtained from picture naming and narrative tasks from the Cantonese AphasiaBank database (Kong et al., 2009). At least 20 items in each condition were chosen with comparable age of acquisition and familiarity estimates; however, imageability ratings were higher in naming than narrative tasks and higher for nouns than verbs.

Results and Discussion

Significant main effects of speaker group, word class, and task, as well as a two-way interaction between task and word class were found. Better performance was observed in normal speakers, in nouns and in picture naming. The difference in accuracy between word classes was greater in naming than narrative tasks. A hierarchical multiple regression was also carried out to assess the effects of word class and task after the influence of imageability had been taken into consideration. Only "task" remained a significant predictor.

Our results have shown that when the influence of confounding factors is considered, there is no evidence for word class specific deficits among fluent aphasic speakers (but see Matzig et al., 2009) or contextual facilitation of word production. The findings also reinforce the use of picture naming to assess impaired word retrieval.

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