

A quantitative and qualitative analysis of errors occurring in the codeswitched utterances of two bilingual siblings

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Keywords: *code-switching; errors; CLAN*

Abstract

This paper reports on some of the results of a wider investigation of code-switching in a computerised corpus of child bilingual language, the LOBILL Corpus, which consists of twenty-five hours of recordings of naturalistic interactions between two bilingual Brazilian/English siblings (JAM, 3;6 and MEG, 5:10) and their family members). Collected over three years, the data was transcribed and coded using the CHAT (Codes for the Human Analysis of Transcripts) transcription system developed by MacWhinney and colleagues (MacWhinney, 2000). Errors (see Gagarina, 2013, Gillam et al, 2013 and James, 2013 for a discussion on the use of this term) were identified and coded, and information regarding the target form and possible origin of the error were also included in the transcripts.

Focusing on the production of the bilingual siblings, the CLAN (Computerized Language Analysis) software (MacWhinney, 2018) was used to perform several analyses. First, frequency analyses were performed on the siblings' output in order to determine the number of times errors occurred (i) overall and (ii) only in code-switched utterances. The

overall frequency results showed more error codes for JAM (956) than for his older sister MEG (371). However, for both children, proportionately more error codes were seen to occur in their codeswitched utterances than in their monolingual utterances. An examination of the tokens coded as errors revealed a marked difference in the type of errors each child produced while in bilingual mode: whereas the older sibling's errors were mostly lexically related, JAM's errors were mostly grammatical in nature. In addition, it was noted that while MEG's errors consisted of mostly singular occurrences (i.e. she rarely repeated the same error twice), the top two most frequent tokens in JAM's frequency list, 'which' and 'to' occurred 19 times and 15 times respectively, accounting for over 17% of the errors he produced when code-switching.

A second more qualitative analysis involved using CLAN to retrieve all the codeswitched utterances containing errors, thereby enabling their examination in a wider linguistic context. Due to the longitudinal nature of the corpus, it was also possible to track JAM's reoccurring errors over the three years and investigate the data from a developmental perspective. In many cases it was necessary to examine the siblings' monolingual output in order to determine the extent to which an error could be attributed to the act of code-switching itself (i.e. caused by the surface juxtaposition of two languages) or the result of the manifestation of underlying cross-linguistic influence (see Jarvis, 2009 and Treffers-Daller, 2009). By also considering developmental aspects and the influence of contextual factors, such as the language of the environment (which changed over the course of the data collection), this paper provides a holistic examination of two bilingual siblings' errors, the results of which offer a unique insight into the possible outcomes of bilingual language use.

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