Variation in ethnic accentedness in child-directed speech of bilinguals

This study investigated the variation in ethnic accentedness of child-directed speech (CDS) by examining the CDS of English-Malay bilingual caregivers in Singapore. Studies on sociophonetic variation in segmental properties of monolingual CDS have found that CDS towards girls, younger children, and in formal contexts tends to contain more standard variants than CDS towards boys, older children, and in informal contexts [1][2][3], showing considerable variation according to social and stylistic factors. CDS in bilingual contexts is even more varied. Not only do bilinguals style-shift, bilinguals codeswitch, incorporating phonetic features of either language to fulfil specific communicative purposes and depending on the sociolinguistic significance of the variant (e.g. [4]). However, little is known about whether and how bilingual parents vary these features in CDS, particularly those in multilingual contexts, where accented speech sometimes plays a role in indicating ethnic membership.

The feature of interest in this study is word-final /l/. In many varieties of English, /l/ is pharyngealized syllable-finally (dark). In Malay, however, /l/ is clear in all positions [5]. [6] found the syllable-final /l/s in the English speech of Malay-dominant English-Malay bilinguals to be mostly clear, possibly as a result of cross-linguistic transfer. [6] argued that the maintenance of these ethnic markers could be a way in which Singaporeans construct their social identity. Unlike foreign-accented speech, Singaporeans can sound more or less ethnic-accented according to context [7]. The aim of this study is to examine whether mothers sound less ethnically accented according to constraints found in previous studies, specifically, whether there are more word-final clear /l/s in informal contexts and in CDS towards boys.

Six mothers and their children (mean age = 59 months; 3 girls, 3 boys), their spouses and the researcher were recorded in various contexts: casual conversation, unstructured play (both defined as informal), teaching and reading (both formal) [2]. The entire vocalic and liquid interval of all word-initial and word-final /l/s were hand-segmented for the onsets/offsets and their transitions guided by F2 on the spectrogram [8][9] (total = 962 tokens). The F1-3 (laterals) and F1-2 of the vowels were measured at their steady states. Darkness of /l/ was defined by F2-F1 differences, in Bark [9]; clear /l/s have larger F2-F1 differences.

The findings revealed that, in informal situations, final /l/s are clearer, close to initial /l/s (Figure 1). Figure 2 shows that the individual mean F2-F1 differences of word-initial and word-final /l/s are larger in formal than in informal contexts. A linear mixed effects model revealed that formality was a significant predictor of darkness of word-final /l/ ($p < 0.001$), but child gender was not. Mothers approximated a less Malay-accented form in formal speech, either by using the dark variant or vocalisation (Figure 3). The current study provides new evidence that allophonic realisation of a feature that may be a result of cross-linguistic influence can also be socially-correlated, and potentially transmitted. A preliminary follow-up acoustic analysis[1] revealed that fathers used clear /l/ less variedly, illustrating the complex, multi-dialectal input that children in multilingual contexts are exposed to.

Word count: 499

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[1] A full analysis of father and child data will be performed and presented at the conference
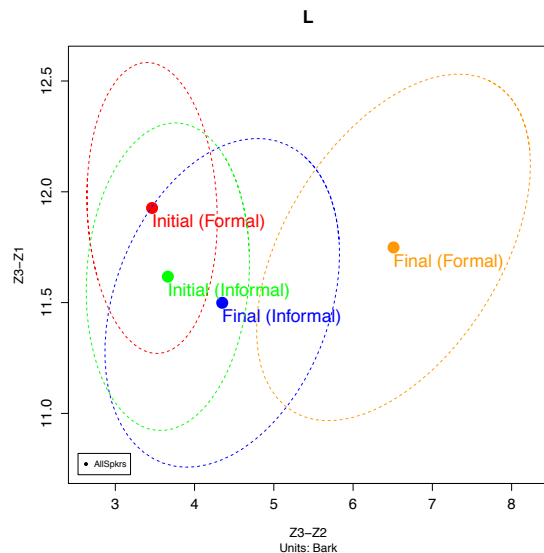
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Figure 1
Bark difference normalised ellipse plot of word-final and word-initial /l/s produced in formal and informal contexts (1 standard deviation)
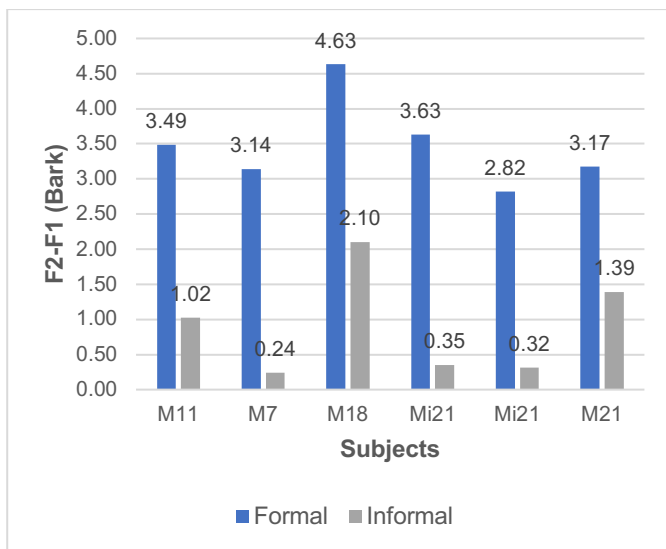

Figure 2 Bar graph showing differences in mean F2-F1 (bark) between word-initial and word-final /l/ in formal and informal contexts (larger difference indicates more difference in darkness between word-initial and word-final /l/s).
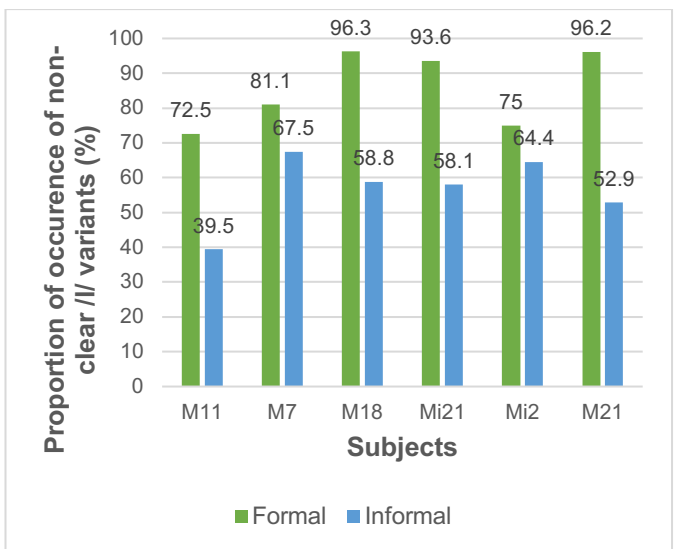

Figure 3 Bar graph showing proportion of non-clear /l/ variants (i.e. dark or vocalised) word-finally in formal and informal contexts

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