

Sociophonetic variation in London English vowel nasalisation

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One hypothesised driver of sound change is coarticulatory vowel nasalisation, whereby a sequence of a vowel plus nasal consonant (VN) is coalesced into a nasalised vowel (\tilde{V}) (Beddor 2009). How nasal coarticulation varies sociolinguistically both within and between different dialects of the same language and what this means for theories of sound change remains unclear (Tamminga & Zellou 2015). For instance, Bongiovanni (2021a, 2021b) finds that dialects of Spanish with more nasal coarticulation do not necessarily show the concomitant weakening of the oral segment predicted by Beddor's (2009) model. Furthermore, many of the theoretical claims regarding nasal coarticulation derive from evidence from American English, yet only recently have researchers begun to empirically study the phenomenon among other English varieties, including British accents (e.g. Dewhurst 2024; Lo 2025). Wells' (1982) description of London English lists strong nasal coarticulation and a nasal voice quality among its features, yet to our knowledge, this has never been quantified.

Sixty L1 speakers of English who grew up in London and its surrounding areas are being recruited and recorded at two London universities (data collection is currently in progress). Vowel nasalisation data were obtained via a word list of nasal–oral minimal pairs. Participants were recorded using an icSpeech handheld nasometer, which consists of two microphones separated by a baffle, yielding different acoustic channels for the mouth and the nose. Nasalance values (the proportion of nasal amplitude) were calculated for the duration of the pre-nasal vowel in each VN token. Speakers' use of variables associated with different accents spoken in London (e.g. Standard Southern British English [SSBE], Multicultural London English [MLE] and Cockney) were tested via a separate word list recorded with a conventional microphone, enabling accent group classification.

Initial results from six speakers (see Figure 1) show that overall nasal amplitude in pre-nasal vowels in bVn environments is higher for speakers with more SSBE-like features than those with more MLE-like ones, though the timing of coarticulation is similar between the two groups. Our final results will include LMER and GAMM analyses of static and dynamic measurements of nasalance, thus offering the first empirical description of vowel nasalisation in London English while also assessing the impact of sociolinguistic variation on coarticulatory sound change.

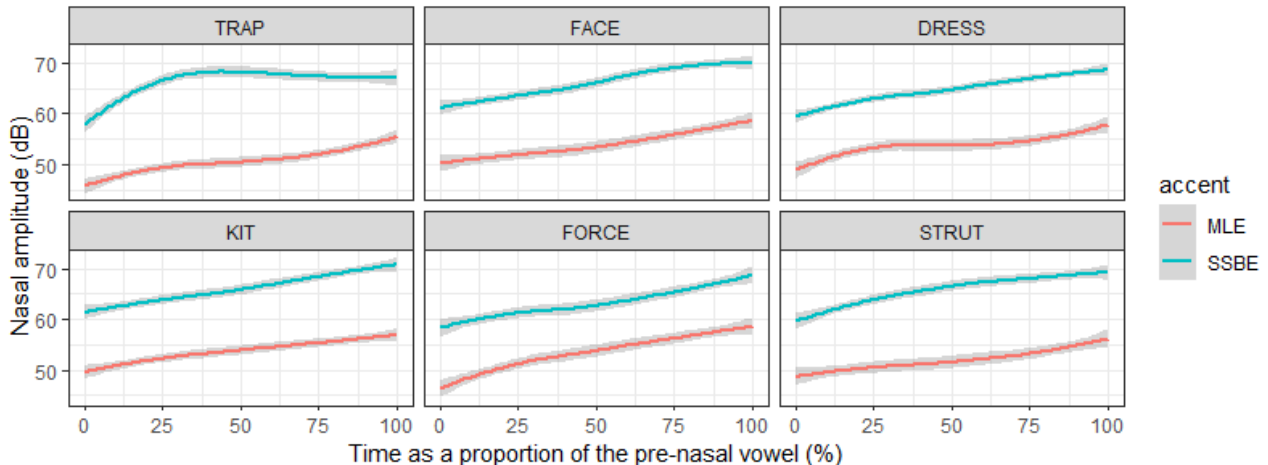


Figure 1: Nasal amplitude across the duration of pre-nasal vowels in bVn words (e.g. *ban*, *bin*, etc) by vowel (lexical set) and accent group for six speakers (3 × MLE, 3 × SSBE).

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