

Real-time control of accent features in the speech of London teenagers

Devyani Sharma and Andy Gibson

The social meanings of style-shifting have been studied extensively, but style control and its role in variation is less well understood. Speech style involves both intended targets and variable control, with speakers continually managing a balance of social goals and cognitive costs (Dragojevic et al. 2016; Sharma 2025). Developing precise tools for assessing whether features are part of a speaker's baseline system(s) or are more effortful or performed (cf. Kendall 2009; Guy & Cutler 2011; Sharma 2018) can sharpen our understanding of how a speaker balances competing pressures, why particular combinations arise in 'bricolage' (Eckert 2004), and ultimately how a sound change diffuses through a population. In the present study, we advance tools for the real-time tracking of style control, using auditory and acoustic measures of consonant and vowel variables to investigate notable deflections from mean rates during an interaction. We also attend to new loci of variation, drawing on disparate research, e.g. asymmetric inhibitory control in bilinguals (Meuter & Allport 1999), imperfect control when switching (Goldrick & Blumstein 2006), and models integrating voluntary and involuntary vocal behaviour (McGettigan & Scott 2014).

We present a close analysis of six case study teenagers from a large new corpus of London English (*Generations of London English*, generationsoflondonenglish.org). All individuals are working class Londoners aged 16-18yrs. They all speak Multicultural London English (MLE), and crucially all have substantial use of new MLE vernacular phonetic variants: more monophthongal FACE vowel with higher onset, fronter onset and shorter trajectory of PRICE vowel, extreme fronting or backing of GOAT vowel, GOOSE fronting, and DH-stopping. Based on their aggregate rates, these speakers would typically be grouped together. However, with new real-time tracking, we show marked differences in variation and control of features during casual speech. For example, two Black male teenagers share similarly high DH-stopping rates and similar mean F1 for the nucleus of FACE yet show marked differences in how they manipulate these forms in real time. Specifically, we track how speakers monitor and control their MLE features in real-time through two broad categories of variation: (i) the overall 'shape' of variation over a whole interaction, and (ii) precisely how style-shifts are executed at critical moments. For (i), we track global shapes such as late emergence of a form (relaxation of inhibition), steady use (absence of inhibition), and degree of clustering (Tamminga 2019; Sharma & Rampton 2015). For (ii), we identify signals of reduced cognitive control, e.g. slow speech rate, violation of phonetic constraints, mis-realisation, and non-use of forms with reduced attentional resources. These reveal distinct ways of participating in variation even when conforming to comparable group levels: (1) high style range and fine control of MLE forms, suggesting default status (e.g. shifting consonants, vowels, and f0 during high engagement, and fine-tuned shifts in inhibition with slow and fast reading); (2) similarly default status for MLE forms but more invariant use; (3) active use and style-shifting but with less control, such that MLE operates as a routine stylistic target but other variants (e.g. older Cockney forms) surface in moments of high cognitive load or lower attention. This more comprehensive approach to tracking the vernacular in real time offers a finer understanding of a person's range of default and performed styles and, ultimately, their place and participation in the diffusion of features.

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