

Exploring listener sensitivity to the temporal dynamics of back vowel fronting

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This study explores the social perception of the temporal-dynamic properties of a sound change in progress: the fronting of the back vowels /o/ and /u/ in York, Northern England. Production data indicate that these vowels are undergoing diachronic fronting, and are subject to relatively stable synchronic diphthongization. Additionally, fronting may target both the onset and offglide of /u/ and /o/, providing a range of temporal-dynamic variation which may be available for social evaluation in this community.

In order to investigate York listeners' sensitivity to the potential indexical meanings of these phonetic properties, an experiment was conducted in which participants matched semi-synthetic word tokens to a set of characters representing locally-relevant stereotypes. These characters varied systematically on a range of social dimensions, including their age, occupation, and urban/rural identity.

Figure 1: /u/ variants tested

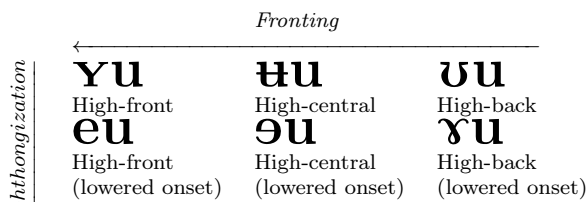


Figure 2: /o/ variants tested

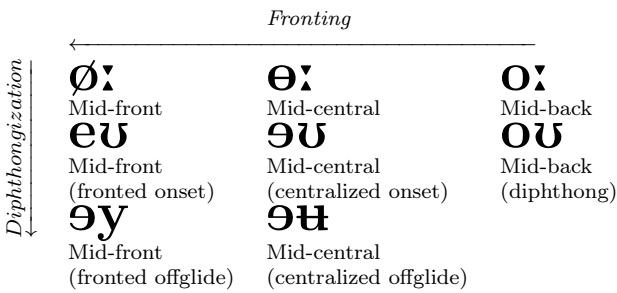
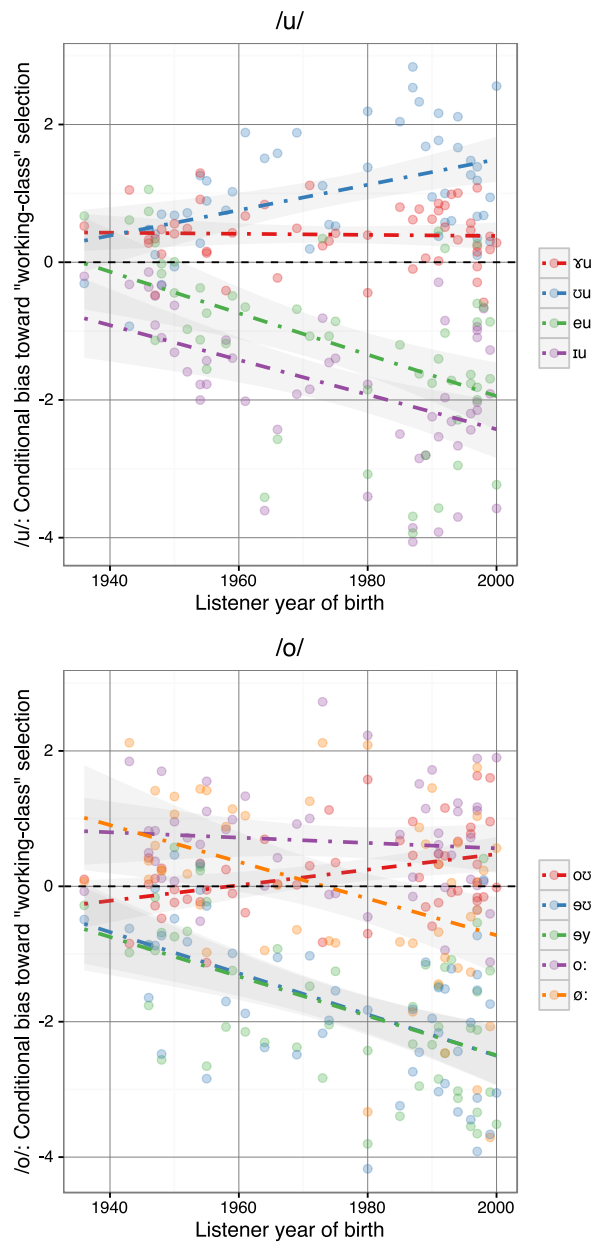


Figure 3: Sample results



The results indicate that listeners of different ages vary in their social evaluation of the changing forms. For example, Figure 3 demonstrates that younger listeners are more sensitive to /o/ diphthongization and /u/ fronting as a cue to socioeconomic status than older participants. Additionally, older listeners appear to hear back, diphthongal /o/ as relatively unmarked, and fronted monophthongal /o/ as 'working-class'; while younger listeners show the reverse of this pattern. These results are broadly consistent with patterns of leveling and innovation evident in the production data, where a subset of younger speakers appear to avoid the acoustic space which they perceive as most socially marked.

Together, the findings contribute two key insights: firstly, that social meanings may attach to both 'static' and temporal-dynamic properties of vocalic variation, and secondly, that listeners' sensitivity to these properties as a social cue may be related to their participation in ongoing change.