

The influence of coda neighbors on phonetic variation

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It is well known that the neighborhood density of a word has effects on the articulation of vowels (e.g. Wright 2004, Scarborough 2003, Munson & Solomon 2004). In previous research, Baese-Berk and Goldrick (2009) showed that among words with voiceless stop onsets, those having a minimal pair with a voiced stop onset (cod — god) have longer onset VOTs than those that do not have a minimal pair with a voiced stop onset (cop — *gop). However, the mechanisms responsible for these effects, and the effects of neighborhood density on the articulation of segments in other word positions, are less well-understood. The present study explores the effect of neighborhood density on the acoustic properties of syllables closed by voiced or voiceless stop codas. Words can either have a minimal pair differing in coda voicing (coat — code) or not (vote — *vode). Results show that vowels in words with such minimal pairs are acoustically more peripheral (as measured by their distance from the center of a speaker's F1-by-F2 vowel space) when preceding voiceless stops, and somewhat less peripheral when preceding voiced stops. Implications of this finding for a theory of language production, especially in regard to the structure and degree of level interaction, will be discussed.

Selected References

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