Effects of prosodic structure on the timing of coda glottalization. Marie K. Huffman, Department of Linguistics, Stony Brook University, Stony Brook, NY, USA.

A number of studies have documented a complex of factors determining the occurrence of glottalization on voiceless coda stops in American English, including segmental, prosodic and sociolinguistic influences (e.g., Selkirk, 1972; Kahn, 1976; Cohn, 1993; Byrd 1994; Pierrehumbert 1994, 1995; Lavoie 2003). However, little attention has been given to the temporal properties of coda glottalization. Cohn (1993) reports that coda glottalization can spread onto a following sonorant, affecting the whole segment (hence her proposal of a glottal feature spreading rule). However, our analysis of data from six female speakers of American English suggests that glottalization of all of the sonorant following a glottalized voiceless coda is the exception rather than the rule, and more frequently only a portion of that sonorant is glottalized. These conflicting results may be due in part to differences in prosodic structure in utterances in the two studies. Cohn’s coda [t]’s preceded a prosodic phrase boundary and a pitch accented syllable, while our [p]’s and [t]’s followed a pitch accent and were phrase medial. Previous studies have shown that pre-vocalic glottalization occurs more frequently before a pitch accent and both pre-vocalic and post-vocalic glottalization occur more frequently at prosodic phrase boundaries. The data suggest that the temporal extent of coda glottalization also shows effects of prosodic structure; specifically, with lengthening in the vicinity of phrase boundaries and pitch accents. In conclusion, a unified account of coda glottalization timing should be grounded in temporal effects of prosodic structure, and Cohn’s glottal spreading rule is unnecessary.