

Lenition in Liverpool English: phonology meets cognitive sociolinguistics

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Phonological stops in Liverpool English frequently lenite to affricates and fricatives (Knowles 1973, De Lyon 1983, Honeybone 2001, Sangster 2001, 2002). This is attested in stops at all places of articulation, and in a variety of prosodic positions, but is most frequently found in utterance-final position (where, for example, /t/ can surface as [t, t^h, ts, s, h]). The only detailed phonological treatment of this phenomenon to date is Honeybone (2001) who (partly following e.g. Harris 1994) provides an explanation in terms of the loss of privative subsegmental material, and makes a number of important generalisations concerning the inhibition of lenition in certain segmental and suprasegmental environments. However, because of the phonological nature of Honeybone's analysis, certain phonetic details are overlooked.

In this paper, I provide an acoustic analysis of all six phonological stops /p, t, k, b, d, g/ produced by 16 male and female adolescents during an elicitation task. I show that whilst the range of realisations described in previous literature is well attested, there is much more variability than has previously been indicated. For example, I show that when utterance final /t/ surfaces as a fricative, it is not straightforwardly alveolar [s], nor even a 'slit' alveolar fricative, as Honeybone (2001) has suggested, but rather that there is a wider range of previously unrecognised variants of 'stopless /t/', each with varying degrees of oral approximation. I provide evidence that this phonetically fine-grained variability is not random because (i) individual speakers show a preference for one variant over another, and (ii) there are interesting differences between male and female speech. As a result, I show that this phonetic detail is under the strict articulatory control of the speakers, and must be part of the speakers' phonological knowledge (see e.g. Docherty & Foulkes 2000).

The paper concludes by explaining that whilst LE lenition might be best described in terms of the loss of subsegmental material, the fine-grained, socially indexed, phonetic variation cannot be suitably modelled in this way and is best thought of in terms of gradient articulatory gestures (e.g. Browman and Goldstein 1986, 1992). I show that these two approaches are not incompatible, and show that they can be combined using an exemplar, usage-based model of phonology (see e.g. Bybee

2001, Pierrehumbert 2001). It is in this way, I argue, that sociolinguistic information can insightfully be said to be part of the speaker's phonology. In combining these areas, the paper (i) considers some of the aspects of the phonological system that are sensitive to sociolinguistic variation, (ii) examines if and how the cognitive, underlying, subsegmental material (e.g. features, elements) interacts with this variation, and (iii) asks just how insightful it is to consider lenition in Liverpool English – and phonology more generally – from the perspective of cognitive sociolinguistics.

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