

# **T[ʊ] c[ʊt] for sch[ʊt]: the interaction of /l/-darkening and /u/-fronting in Manchester**

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The process of /u/-fronting, whereby the long high back rounded vowel in words such as *two* and *goose* is articulated towards the front of the mouth, resulting in higher F2 values, is reported for a remarkable number of dialects of English. These include the UK (Haddican et al. 2013, Henton 1983, Cheshire 2011, Jansen 2012, Harrington 2008), the US (Baranowski 2008, Fruehwald 2013, Hall-Lew 2011, Labov 2001, Ohala 1989) as well as the Southern Hemisphere (Harrington 1997, Mesthrie 2010). Many of these studies report blocking of /u/-fronting before /l/, which is unsurprising given that /l/ is darker, i.e. the tongue is backer, in such contexts.

For Greater Manchester in the UK, Hughes et al. (2011, 2012) report the same pattern in their 16 speakers from Salford and Trafford: /u/ fronts to a greater or lesser extent in all contexts except before a final /l/. Interestingly, this is not what was found by Baranowski (2013) in a study of 45 speakers in the City of Manchester, which showed considerable fronting before /l/; although upper-middle-class speakers followed the typical pattern found in other varieties, working-class speakers did indeed front before /l/.

This paper reports on pattern of variation in /u/-fronting before /l/ based on the acoustic measurements of 70 speakers across five socio-economic levels. Multiple linear regression analysis confirms that social class is a highly significant factor, showing an inverse monotonic relationship between socio-economic level and the extent of the fronting, i.e. the lower the social class, the more advanced the fronting before /l/. Age turns out not be a significant factor, suggesting that this is not a change in progress in Manchester, but a case of stable sociolinguistic variation, with WC speakers showing advanced fronting of /u/ before /l/. This poses the question as to why speakers may be fronting their /u/s in this phonetically disfavoured position.

This paper presents novel data using ultrasound tongue imaging, examining the realization of both /u/, and /l/ across different phonological environments. The ultrasound data show that WC Mancunians (Figure 1) do not exhibit the typical light/dark dichotomy between initial and final /l/s, whereas MC do (Figure 2). We pose the question as to whether this is indicative of a lack of an allophonic distinction in /l/ realisation for these WC speakers, or whether the small, fine-grained phonetic difference between initial and final position results in speakers treating the two environments identically, and therefore not a separate category which inhibits fronting.

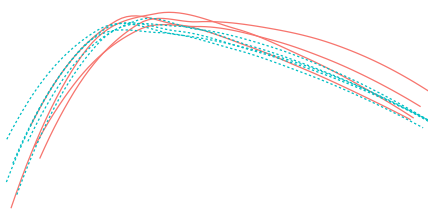


Figure 1: Working class speaker's /l/s

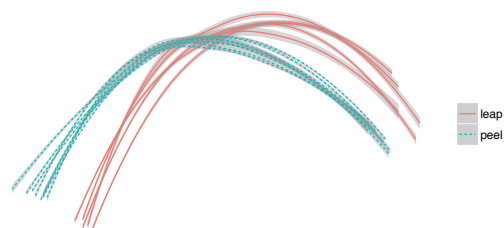


Figure 2: Middle class speaker's /l/s

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