

A [ʃ]triking change in Manchester English

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Here we present a large-scale investigation of a sound change in progress in Manchester English (McrE): the retraction of /s/ in words such as *street* and *student*, hereafter (str) and (stj), which results in a more [ʃ]-like realisation.

Despite the fact that *s*-retraction is well-studied in American English (e.g. Durian 2007, Gylfadottir 2015, Wilbanks 2017), it is comparatively under-researched in British varieties as work on this variable has been relatively small-scale (Sollgan 2013, Nichols & Bailey 2018) or employed methodologies relying on impressionistic coding (Bass 2009). Though a recent cross-dialectal study by Stuart-Smith et al. (2018) has, to some extent, remedied this for (str), retraction in (stj) has not yet been subject to extensive sociophonetic analysis.

This study uses sociolinguistic-interview data from 131 speakers of McrE, balanced for age, gender and socio-economic status, making this the largest study of *s*-retraction in a single British English speech community. Centre of gravity values were extracted from the middle portion of every sibilant, including canonical pre-vocalic /s/ and /ʃ/ as baselines for comparison, resulting in more than 80,000 tokens that were then subject to linear mixed-effects regression analysis.

The results reveal a number of interesting predictors of variation in sibilant production. Most pertinently, we find evidence of apparent-time change such that /s/ has become more [ʃ]-like across the approximately 80-year time period covered in the sample (see Figure 1). Hierarchical cluster analysis identifies a group of younger speakers who exhibit considerable overlap between (str) and canonical pre-vocalic /ʃ/ (see Figure 2). This suggests that the change is particularly advanced in this community. We also find evidence that *s*-retraction has taken on some social significance: a significant effect of social class reveals that upper middle class speakers exhibit a highly conservative non-retracted [s]. Importantly, in providing the first quantitative evidence of retraction in (stj) in apparent time, we also find that (str) and (stj) are changing in parallel.

The causes of *s*-retraction have long been debated (see e.g. Shapiro 1995, Lawrence 2000, Baker et al. 2011, Stevens & Harrington 2016), with competing theories disagreeing over the role of /ɹ/ in triggering this process. The outcome of the present study, namely that the /ɹ/-less (stj) environment is changing in parallel with (str), casts doubt on claims that this is driven by non-local assimilation with /ɹ/. Rather, affrication in /tɹ/ and /tj/ clusters seems to be the more likely explanation; ongoing analysis is further probing the relationship between *t*-affrication and the realisation of preceding sibilants.

Community-level change in /s/ and /ʃ/ (which can also be seen in Figure 1) also highlights that *s*-retraction cannot be analysed in absolute terms but must be interpreted with respect to the wider fricative space, which is expanding over time in this community and warrants further research itself.

Figure 1: Normalised centre of gravity by date of birth (points reflect speaker means).

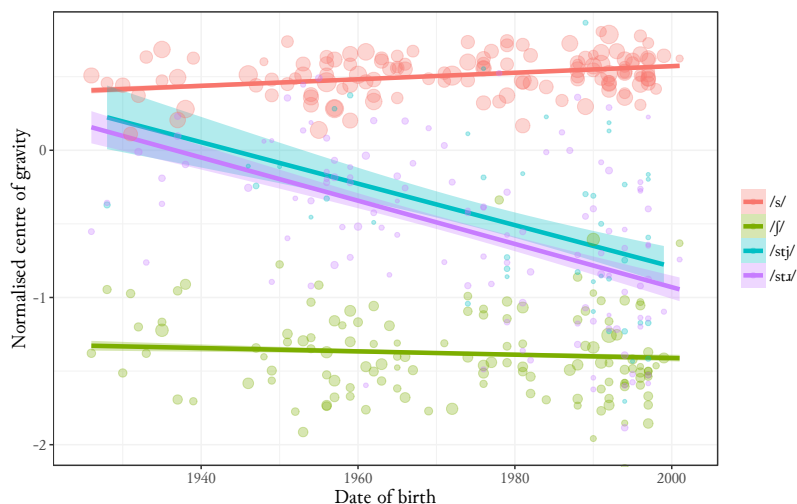
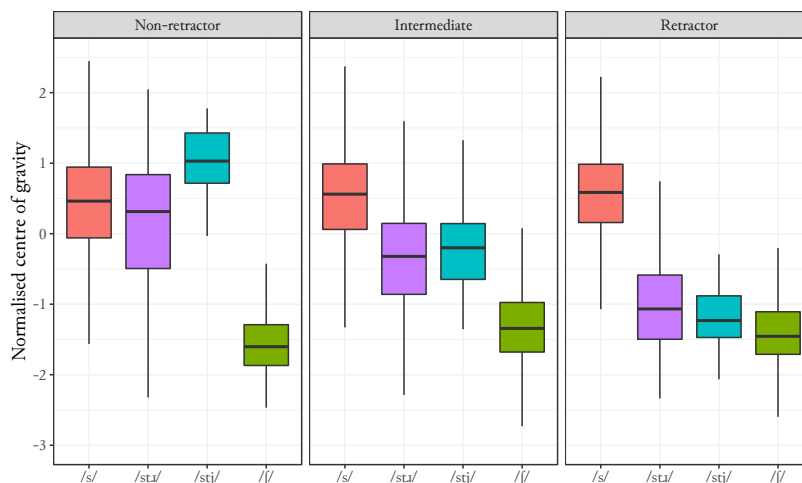


Figure 2: Retractor groups identified by hierarchical cluster analysis.



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