

(str) Retraction in Raleigh: “identical” variants implicated in two separate sound changes

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The phenomenon of (str) retraction is an ongoing sound change in English in which /s/ retracts towards [ʃ] in the context of a /stɹ/ cluster. This change appears to be quite widespread, occurring across the US, UK, and New Zealand (Durian, 2007; Gylfadottir, 2015; Lawrence, 2000; Shapiro, 1995). The current project examines the status of this sound change in the Raleigh, NC corpus of sociolinguistic interviews (Dodsworth & Kohn, 2012).

Interviews were force-aligned using the Penn Phonetics Lab Forced Aligner (Yuan & Liberman, 2008) and all tokens of /s/ and /ʃ/ were extracted. After excluding phrase final tokens¹, tokens contiguous with another sibilant, and tokens shorter than 40ms, 84,575 tokens remain for analysis. The first spectral moment, COG, was calculated using a 30ms Hamming Window centered on the midpoint of the fricative. COG is used as the dependent variable because it has been shown to be a robust indicator of the /s-/ʃ/ distinction (Baker et al., 2011; Jongman et al., 2000) .

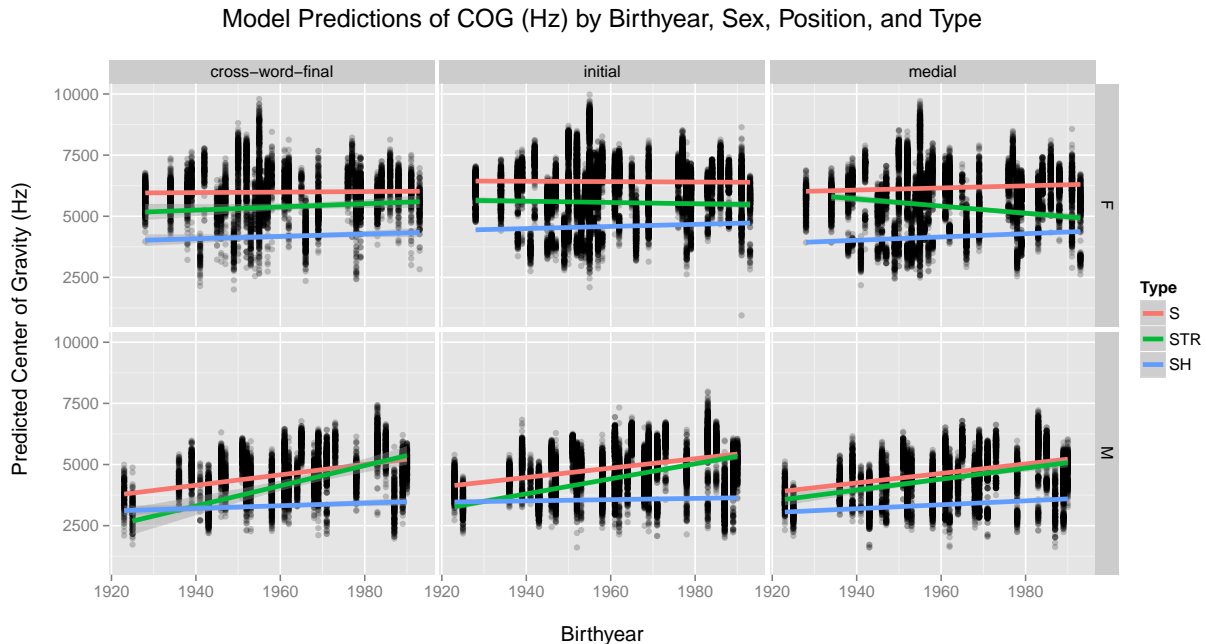


Figure 1: Fitted Center of Gravity by Birthyear, Sex, Position, and Type

Figure 1 plots the fitted values of a linear mixed effect model run on 84,575 /s/ and /ʃ/

¹(str) cannot occur phrase-finally.

tokens from 82 speakers. Unlike previous sociophonetic analyses (Durian, 2007; Gylfadottir, 2015; Hinrichs et al., 2015), I find a significant sex-effect, with (str) retraction being led by young women, but only word-medially. In addition, older men from the corpus (born in the 20s-40s) already have the retracted (str) variant, but male (str) becomes less retracted over time.

Due to the specific word-positions conditioning the changes, along with the fact that retracted (str) disappears in male speech occurs at the same time as community-wide retreat from features of the Southern Vowel Shift (SVS), I argue that retracted (str) in the speech of old men and young women are actually implicated in two separate changes. These sound changes progress in separate generations, but exist simultaneously within the community.

References

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