

Empathy, flexibility, and conformity in a sound change in progress

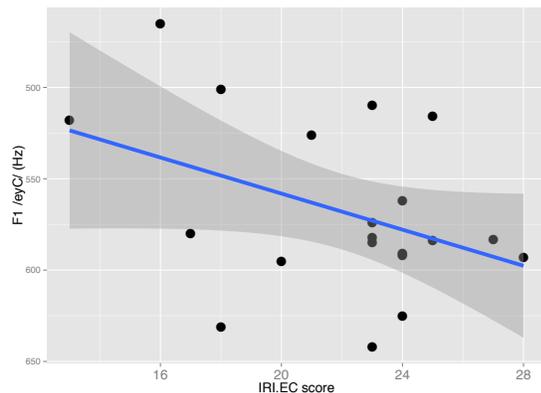
The study of sound change in progress has increasingly focused on individual differences. Labov's characterization of change leaders as being well connected, upwardly mobile, nonconformist women (2001) has influenced subsequent work in sociolinguistics (e.g. Denis 2011), but is based on observations of few individuals. Meanwhile, studies in laboratory phonology have detected correlations between individual differences in phonetic perception/production strategies and speculated on how such differences may relate to the actuation and propagation of sound changes (Stewart & Ota 2008, Yu 2010, Mielke et al. 2010, Baker et al. 2011, Beddor 2012, Lev-Ari & Peperkamp 2014, Baese-Berk et al. 2015, Kingston et al. 2015). Synthesizing such work, Yu (2013) relates personality and cognitive style to both processing style and social preferences, proposing that "minimal compensators who are superior empathizers might be at an advantage in exerting their speech patterns on others within their social networks" (224). However, the results from laboratory studies thus far do not include data on individuals' production of ongoing community sound changes. This paper reports on pilot data from a large scale study relating individual differences in conversational speech to those same individuals' performance on a battery of experiments and personality instruments.

The change under investigation is pre-consonantal /eɪ/-raising in Philadelphia English (Labov et al., 2013). Twenty white Philadelphian women in their early 20s, the group known to lead this change, were recruited in friendship pairs and recorded in dyadic conversation, without a researcher present, for 30 minutes. Nucleus F1 measurements in Hertz for the first 30 instances of /eɪ/, with no more than three tokens per word, were made in Praat for each participant. The mean height of /eɪ/ for each participant is then correlated with that participant's scores from the tasks in the experimental battery. The preliminary data from three of the tasks are reported on here as relating to the predictions from Labov and Yu above.

Labov's suggestion that nonconformist women tend to lead change is tested using the Self-Monitoring Scale (SMS) (Snyder, 1974), a 25-item self-reported scale of personality factors related to social restraint — that is, unwillingness to diverge from social norms. There is no evidence for a relationship between the participants' SMS scores and their degree of /eɪ/-raising (Pearson's $r = -.11$, $p = .65$). Yu's notion of "minimal compensator" derives from perception tasks but might be expected to extend to the production flexibility reflected in phonetic convergence during shadowing. But convergence to lengthened VOT, elicited using a replication of Experiment 2 from Shockley et al. (2004), does not seem to correlate with /eɪ/-raising either (Pearson's $r = -0.06$, $p = 0.80$). A weak relationship between "superior empathizers" and /eɪ/-raising does appear (Fig. 1), but it is in the *opposite* of the direction Yu predicts: /eɪ/-raising is most advanced among young women who have the lowest scores on the "empathic concern" subpart of the Interpersonal Reactivity Index (IRI) (Davis, 1983) (Pearson's $r = .4$, $p = .08$).

The negative and reversed results reported here need not be understood as refuting prior work on the role of personality factors in sound change. /eɪ/-raising is a classic change from below in that it shows no metalinguistic awareness or social stratification (Prichard & Tamminga 2012), so these results may simply reflect the need to refine theories of personality in sound change to be sensitive to different types of change. The full phase of this project (currently underway) will compare these personality factors in change from above, change from below, and phonetically motivated change across a larger number of individuals. However, these results might also serve as a reminder that laboratory-born theories of sound change can and should ultimately be tested against the data on community-level change in progress that surrounds us.

Figure 1. Correlation between IRI-EC (empathy) and /eɪ/-raising



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