TH-stopping in New York City: substrate effect turned ethnic marker?
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TH-stopping, reported in the speech of working-class and immigrant groups across the U.S. (Wolfram 1969, Dubois & Horvath 1998, Rose 2006, Mendoza-Denton 2008), has long been considered a regional feature of New York City English (NYCE). Its origins in NYCE have been anecdotally attributed to a substrate effect (Thomason & Kaufman 1988) produced by Italians, the Irish, and Poles (Babbitt 1896, Labov 1966). This study analyzes th-productions from sociolinguistic interviews with 12 Poles born in NYC (Generation 2) or residing there since they were teens (Generation 1). Results suggest that TH-stopping in the Polish community did indeed originate as a substrate effect, but has since become an ethnic marker.

An acoustic analysis reveals that “substituted” stops (products of TH-stopping) employ the Polish voicing contrast (negative VOT for [d] vs. short VOT for [t]), rather than the English one (short VOT for [d] vs. long VOT for [t]). Specifically, “substituted” [d] and [t] have mean VOT values of -2 msec and 20 msec, respectively, significantly shorter than those of underlying [d] (20 msec) and [t] (70 msec). T-tests for both yield p<.05.

A GOLDVARB multivariate analysis was conducted on th-productions acoustically coded as stops or fricatives. The linguistic conditioning of TH-stopping is consistent with its role as a fortition and a markedness-reducing process. Specifically, stopping is favored in typically “strong” consonantal positions: utterance-initially (factor weight: .65), as opposed to utterance-medially (.47). It is also common with function words, especially those likely to act as syntactic heads and carry stress (e.g. those: .79, these: .54, but them: .36). Lexical words disfavor stopping, irrespective of the position of the fricative (initial: .39, medial: .36, final: .39), whereas th-initial numbers favor, and th-final numbers disfavor stopping (initial: .54, final: .33). TH-stopping is also conditioned by the sonority of the preceding segment: the less sonorous the segment, the more likely it is to trigger stopping (stops: .61, fricatives: .48, sonorants: .39). This result may reflect the stigmatized nature of TH-stopping: substitutions produced in contexts of small sonority distance are perceptually harder to identify (Berent et al. 2007). Naro (1981) has similarly argued for a saliency effect in the distribution of a stigmatized syntactic variable in Brazilian Portuguese.

Generation and gender emerge as social predictors of TH-stopping, with first generation speakers (.56) and women (.52) favoring stops. TH-stopping thus exhibits the generational pattern typical of substrate effects (Guy 1990). Interestingly, both generations display sharp stylistic effects across different tasks (interview, passage, word list), almost entirely resisting stopping in the word list. The association of TH-stopping with female speech is unusual (compare e.g. Dubois & Horvath 1998), and may point to the emergence of an ethnic marker (Mendoza-Denton 2008). This interpretation is supported by the analysis of social networks, which reveals a strong positive correlation between TH-stopping rates and speakers’ Polish-orientation scores (r=.8, p<.007): those who speak Polish in both private and public (within the family and with strangers), have more Polish friends, belong to Polish cultural institutions, and use Polish media, exhibit higher rates of substitutions.