TH-stopping in New York City: Substrate Effect Turned Ethnic Marker?

Luiza Newlin-Łukowicz*

1 Introduction

TH-stopping, typically defined as the substitution of stops [t, d] for interdental fricatives [θ, ð], reappears as a sociolinguistic variable in all of the world's Englishes. In the U.S., TH-stopping has been overwhelmingly associated with working class or immigrant populations (Labov 1966, Wolfram 1969, Dubois and Horvath 1998, Rose 2006, Mendoza-Denton 2008). The higher frequency of substitutions among immigrant groups, coupled with the cross-linguistic markedness of interdental fricatives, has often been taken to suggest that TH-stopping is a substrate effect. For example, in New York City English (NYCE), the origins of TH-stopping as a dialect feature have been commonly attributed to the non-native speech of the first immigrants to the area, such as the Irish, Italians, and Poles (e.g., Babbitt 1896, Labov 1966); yet, no evidence exists to support this claim. This paper seeks to provide conceptual and acoustic evidence for substrate origins of TH-stopping in one ethnic community in New York City. Specifically, I investigate how interdental fricatives are realized by two generations of Polish Americans. To determine whether the patterning of TH-stopping in the Polish community is consistent with that of substrate effects, I examine TH-stopping acoustically and stylistically. In addition, I explore the social and linguistic conditioning of TH-stopping, as well as its relation to speakers' orientation toward the Polish culture and their use of Polish. Taken together, the results suggest that TH-stopping in the Polish community did originate as a substrate effect, but has since developed into an ethnic marker.

2 Methodology

The analysis focuses on speech data gathered from twelve bilingual Polish Americans residing in New York City. The sample represents generation one (born in Poland, immigrated to New York City between the ages of 8 and 14)[1], and generation two (born and raised in New York City, or immigrated before the age of 2). All second generation speakers are children of immigrants who came to the U.S. as adults in the 1980s. Their parents are native Polish speakers, and often do not speak English at all. For this reason, they were not included in the study, which precluded an apparent-time analysis. The sample thus comprises speakers of comparable age (19-36), education (college-educated or attending college), and occupation (student or young professional). The social characteristics of all speakers are summarized in Table 1.

Speech data were extracted from three stylistic contexts. All speakers took part in sociolinguistic interviews (average length: 60 min), and eight of them additionally participated in two reading tasks directly following the interview. The first task involved reading a short story that incorporated 106 words with interdental fricatives. The second task consisted in reading a word list. The list contained 125 words, including 40 interdental fricatives. Both reading tasks included function words and lexical items alike, and controlled, as much as possible, for the position of interdental fricatives within lexical items. The same eight speakers who participated in reading tasks also completed a Polish-orientation survey, presented in Section 6.

Data extracted from sociolinguistic interviews served as the basis for all analyses presented in this paper. It was supplemented by data from the two reading tasks in the stylistic analysis only. Tokens representing interview speech were extracted from the middle thirty minutes of each sociolinguistic interview, and coded for their manner of articulation (stop, fricative, or affricate), as well as a number of social and linguistic factors (later employed in the multivariate analysis). Un-

*I am grateful to Renee Blake, Gregory Guy, John Singler and members of the NYU Sociolab for continued input on this work. I would also like to thank audiences at NWAV 41, the 3rd Workshop on Immigrant Languages in the Americas, and the 87th Annual Meeting of the LSA for useful discussion.

[1]Speakers who immigrated before the critical period are oftentimes classified as Generation 1.5. Here, I combine them together with generation one as no qualitative or quantitative differences are observed in the way these two groups employ TH-stopping.

like the bulk of previous studies on TH-stopping, coding of the manner of articulation was done acoustically, using Praat. The coding criteria are provided in Table 2.[2] Assimilated, deleted, or affricated productions were not included in the analysis.

Gender	Generation	Name	Age	AOA	Occupation	Residence
Male	One	Wojtek	20	13	Student	Midwood, Brooklyn
		Dominik	28	14	Engineer	Ridgewood, Queens
		Kamil	36	8	Banker	East Village, Manhattan
	Two	Andrzej	22	1.5	Student	Ridgewood, Queens
		Leonard	21	3 mo.	Student	Ridgewood, Queens
		Victor	33	0	Engineer	East Village, Manhattan
		Maciek	19	0	Student	Bergen Beach, Brooklyn
Female	One	Gosia	20	10	Student	Bensonhurst, Brooklyn
		Jadwiga	33	8	Nurse	Greenpoint, Brooklyn
	Two	Alina	24	0	Student	Greenpoint, Brooklyn
		Natalia	21	0	Student	Williamsburg, Brooklyn
		Anne	19	0	Student	Woodside, Queens

Table 1: Speakers' social characteristics.

Realization	Criteria
Fricative [θ, ð]	Presence of frication
Stop [t, d]	Presence of closure and burst, no frication
Affricate [tθ, dð]	Presence of closure and burst, followed by frication

Table 2: Acoustic criteria for coding.

3 Linguistic and Social Conditioning of TH-stopping: GOLDVARB

3.1 Linguistic Conditioning of TH-stopping

The linguistic conditioning of TH-stopping was investigated through the following factor groups: VOICING (voiced or voiceless), PRECEDING ENVIRONMENT[3] (utterance-initial pause, utterance-medial pause, and three sonority levels), and WORD CLASS (lexical words, *th*-initial numbers, and individual function words). A binomial step-up and step-down analysis identified PRECEDING ENVIRONMENT and WORD CLASS as significant predictors (see Table 3).

The factor group PRECEDING ENVIRONMENT reveals that TH-stopping is favored in typically "strong" consonantal positions: utterance-initially (factor weight: .67), as opposed to utterance-medially (factor weight: .49). TH-stopping is also determined by the sonority of the preceding segment. The conditioning environment represents a reversed sonority hierarchy (Clements 1990), with least sonorous segments (stops) triggering stopping (factor weight: .61), and most sonorous segments (vowels, glides, liquids) blocking it (factor weight: .39). TH-stopping then tends to occur if the resulting sonority distance between the stop and the preceding segment is zero. Sequences of consonants with a small sonority distance are known to be perceptually harder to identify (Berent et al. 2007). Polish Americans may then be favoring these perceptually challenging contexts because of the stigmatized nature of TH-stopping. This saliency-based interpretation is consistent with the expectation that substrate effects should predominate in less salient forms (Van Coetsem 1988 and Guy 1990). However, it seems to be at odds with the observed preference for substitutions utterance initially, which represents a high saliency context. A competing analysis could suggest that manner assimilation, rather than sonority, accounts for the observed pattern (i.e., in-

[2]These coding criteria are more conservative than the ones followed in Rose (2006), as I take the presence of a burst (in addition to the presence of closure) to be a requirement for the identification of stops.

[3]The initial factor levels for PRECEDING ENVIRONMENT were further broken down by place of articulation, but were later combined through a process of *log* comparisons.

terdental fricatives become stops after stops). This interpretation fails, however, to explain why sonorants (vowels, glides, and liquids) strongly disfavor stopping, and fricatives only slightly so.

Factor Group	Factor Weight	% stops	N
PRECEDING ENVIRONMENT			
Utterance-initial pause	.67	47.3	588
Sonority 0 (Stops)	.61	42.9	1138
Utterance-medial pause	.49	31.5	317
Sonority 1 (Fricatives, Affricates, Nasals)	.47	29.9	1244
Sonority 2 (Vowels, Glides, Liquids)	.39	19.9	1737
TOTAL			5024
WORD CLASS			
Those + *These*	.7	51.1	90
There (adverb)	.63	40.8	255
The	.56	36.8	1290
Numbers	.56	33.3	99
They	.53	40	540
Than	.53	30	40
This + *That*	.51	33.4	962
Then	.42	32	206
There (expletive pronoun)	.41	30.1	216
Lexical	.39	16.3	1145
Them	.38	20.2	99
TOTAL			4942

Table 3: Linguistic conditioning of TH-stopping. Application value: stop.

The factor group WORD CLASS further sheds light on the saliency question. Table 3 reveals that TH-stopping is generally more common with function words (factor weights range from .7 to .38) than lexical items (factor weight: .39) or *th*-initial numbers (factor weight: .56). Not all function words, however, favor stopping, which is evident from the vast array of factor weights observed. One possible generalization is that TH-stopping seems to be favored in function words that are likely to act as syntactic heads and/or carry stress (e.g., *their, those, these*, *the*, *they*). Stopping is, in turn, disfavored in function words that are likely to become reduced, which is reflected in the frequent assimilation or deletion of the interdental fricative in *then* (as in *and then*) and *them* (as in *give them*).[4] This interpretation is supported by the way *there* patterns depending on the function it serves in the sentence. *There* exhibits high rates of stopping when it acts as an adverb ("book over there"), and low rates of stopping when it functions as an expletive pronoun ("there is a book"). Although the pronoun occupies a syntactically more prominent position, it is likely to be unstressed. Adverbial *there*, however, is always focused.

An alternative hypothesis would be to suggest that stopping in individual function words is driven by lexical frequency. This explanation does not hold in this data set, however. Correlation tests conducted on type frequency and factor weights, as well as type frequency and percentage of stopping, yielded extremely low correlation values ($r = .003$ and $r = -.1$, respectively), ruling out frequency as a factor. This finding is in line with Guy (1990), who estimated that lexical frequency should have a minimal role in substrate effects, unlike in other types of changes, such as spontaneous change or borrowing. Since substrate effects involve structural changes to the linguistic system, there is no reason to believe they should be lexically driven.

The results for WORD CLASS replicate the pattern observed for TH-stopping in Louisiana (Dubois and Horvath 1998), and Newfoundland (Van Herk, Childs and Thorburn 2007, Childs et al. 2010), with function words favoring stopping, and lexical words disfavoring it. These findings contrast with Rose (2006), where LEXICAL ITEM (i.e., individual function word) and SYNTACTIC

[4]Tokens where the interdental fricative in *then* or *them* was deleted or assimilated to the preceding sound were not included in the multivariate analysis.

FUNCTION (e.g., complementizer vs. adverb) were not significant predictors of TH-stopping for Wisconsinites.

TH-stopping appears to be saliency-driven for Polish Americans. It is triggered by preceding segments with the same sonority profile (i.e., stops), resulting in a perceptually non-salient sequence of consonants. However, substitutions are also observed in contexts of high saliency, such as the utterance initial position and in function words occupying prominent positions within the phrase. This apparent contradiction may be explained by the fact that TH-stopping is a fortition process, expected to take place in prosodically prominent positions even in the speech of monolingual English speakers.

3.2 Social Conditioning of TH-stopping

The social factors included in the multivariate analysis were GENERATION and GENDER.[5] Both factors are associated with a particular distribution in substrate effects. Substrate effects have been shown to pattern the same for both genders, and the emergence of gender differentiation has been taken to imply that the substrate effect has gained some kind of social meaning (Dubois and Horvath 2000). Generational differences, on the other hand, are expected to be present with substrate effects: generation two typically exhibits lower rates than generation one (Fishman 1985), which coincides with the acquisition of more native-like speech.

GOLDVARB selected both GENERATION and GENDER as significant. The expected generational differences are confirmed in this data set, with generation one displaying significantly higher stopping rates (37.1%) than generation two (27.8%). The picture is more complicated, however, as GENERATION interacts with GENDER (see Figure 1 and Table 4). Stopping rates only decrease for men (from 41.8% for generation one to 23.2% for generation two). Second generation women exhibit the opposite trend, manifesting a preference for stops (factor weight: .56), which translates into their higher rates of stopping (35.4%) relative to first generation women (28%). These numbers suggest the presence of a gendered pattern already for first generation speakers, as first generation men surpass first generation women in TH-stopping. This effect is, however, driven by one of the first generation men, Wojtek, whose much higher stopping rates reflect his later age of arrival (see Table 5), relative to first generation women.

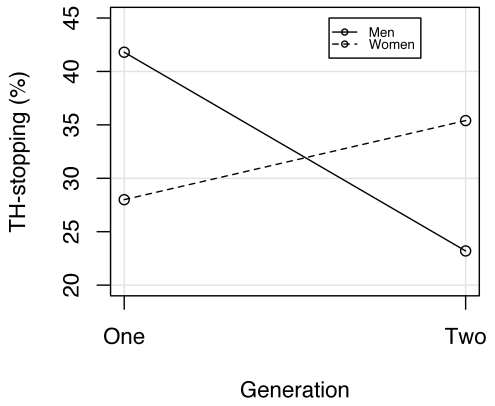

Figure 1: Generation and Gender interaction.

Generation	**One**		**Two**	
Gender	M	F	M	F
Factor Weight	.61	.47	.4	.56
% Stops	41.8	28	23.2	35.4
N	1324	686	1877	1137

Table 4: Social conditioning of TH-stopping.

The gendered pattern is more robust for the second generation, where women are leading in TH-stopping. The female lead is rather unprecedented as TH-stopping has traditionally been associated with male working-class speech. In fact, men have been shown to favor stops in most communities where TH-stopping has been studied, e.g., Detroit (Wolfram 1969), Louisiana (Dubois and Horvath 1998), Wisconsin (Rose 2006), Newfoundland (Childs et al. 2010), and lastly, New York City (Labov 1966). The only exception is New Zealand Pasifika English, where women

[5]Speakers' age, social class and education are not taken into account because of sample demographics, i.e. all speakers represent a similar age range (19-34), are college-educated or in college, and come from working-class backgrounds.

were reported to use stops more frequently than men (54%, as opposed to 44% of the time) (Bell and Gibson 2008). The female preference for TH-stopping suggests that the process may have acquired a unique social meaning for Polish Americans in New York City.

Gender	Generation	Name	% stops	Factor Weight	N
Male	G1	Wojtek	65.4	.82	205
		Dominik	37.7	.58	544
		Kamil	37.2	.57	575
	G 2	Andrzej	38.7	.61	522
		Leonard	24.7	.46	489
		Victor	20.2	.36	416
		Maciek	6.4	.13	450
Female	G 1	Gosia	39.8	.65	294
		Jadwiga	19.1	.35	392
	G 2	Alina	47.3	.7	391
		Natalia	35.8	.59	400
		Anne	21.7	.39	346

Table 5: Speakers' rates of TH-stopping.

4 Acoustic Analysis of Stops: Voice Onset Time (VOT)

A well-documented source of phonological interference for bilingual speakers is obstruent voicing (e.g., Chang et al. 2011, Nagy and Kochetov 2013, Purnell et al. 2005). Likewise, one could expect a certain degree of interference in the way VOT is produced by Polish Americans as obstruent voicing is realized differently in Polish and English. Polish differentiates pre-voiced stops (negative VOT) from voiceless stops (short-lag VOT) (Keating, Mikoś and Ganong 1981). By contrast, English stops manifest an overlap of VOT values: voiced stops use short-lag VOT (zero or low positive values) and voiceless stops use long-lag VOT (high positive values).

I measured the VOT of 356 stops extracted from interview data with seven speakers (among those, two were first generation speakers, the rest were second generation). Tokens included underlying stops /t d/, as in, for example, *tin* or *den*, as well as "substituted stops" [t, d], as in [t]in for *thin* and [d]en for *then*. All stops were post-pausal and word-initial because pre-voicing (negative VOT) can only be reliably observed utterance-initially or word-initially, and only if it follows a pause or a voiceless sound. Stops analyzed here always constituted single onsets in stressed CV syllables of mono- or disyllabic words. For pre-voiced stops, VOT was measured from the onset of voicing (determined by the presence of the voice bar and periodic waveform preceding the burst) up until the start of periodic waveform in the vowel. For stops that did not show pre-voicing, VOT was measured from the burst to the start of periodic waveform in the vowel. Measurements for pre-voiced stops were recorded with negative values; the rest were positive.

Mean VOTs obtained for underlying stops (see Table 6) can be characterized as short-lag (voiced stops) and long-lag (voiceless stops). Phonetically, the only difference between them is the presence of aspiration on voiceless stops. This pattern is typical of stop productions in English and does not diverge much from the VOT values recorded by Lisker and Abramson (1964) for monolingual English speakers (reproduced in Table 6 under "VOT for English"). These numbers suggest that the speakers in this study have fully acquired the English voicing contrast.

A strikingly different pattern emerges for "substituted" stops. In this case, the voicing contrast is better described as that between negative VOT (voiced stops) and short-lag VOT (voiceless stops). "Substituted" [t] (mean VOT = 23 ms) and [d] (mean VOT = -40 ms) differ significantly from underlying /t/ (mean VOT = 70 ms) and /d/ (mean VOT = 12 ms). T-tests comparing "substituted" [t] and underlying /t/, as well as "substituted" [d] and underlying /d/ yield $p < .05$. Note that the mean VOT for "substituted" [t] is very close to the mean recorded for Polish monolinguals by Keating et al. (1981) (reproduced in Table 6 under "VOT for Polish"), and suggests a lack of aspiration.

"Substituted" [d], in turn, has a negative mean VOT, much like Polish monolinguals. However, the mean VOT for [d] (-40 ms) is a compromise value between the mean VOT for Polish /d/ (-90 ms) and English /d/ (5 ms). This compromise value reflects the fact that "substituted" [d] was not always produced with pre-voicing, and, therefore, its mean represents an average of pre-voiced and short-lag VOTs. Figure 2 plots the distribution of all tokens of "substituted" [d] for generations one and two. Both generations display a bimodal distribution of VOTs, with approximately half of the tokens exhibiting negative values. Crucially, negative VOT is as frequent for generation one as it is for generation two. In fact, the mean VOT for "substituted" [d] has a larger negative value for generation two (-45ms) than generation one (-33ms).

Type of Stop	Stop	VOT (ms)	N	VOT for English	VOT for Polish
Underlying	t	70	71	70	
	d	12	46	5	
"Substituted"	t	23	35		28
	d	-40	204		-90

Table 6: Mean VOT values for underlying and "substituted" stops. Mean for English as reported in Lisker and Abramson (1964). Mean for Polish as reported in Keating et al. (1981). VOT (ms) represents means for speakers in this study.

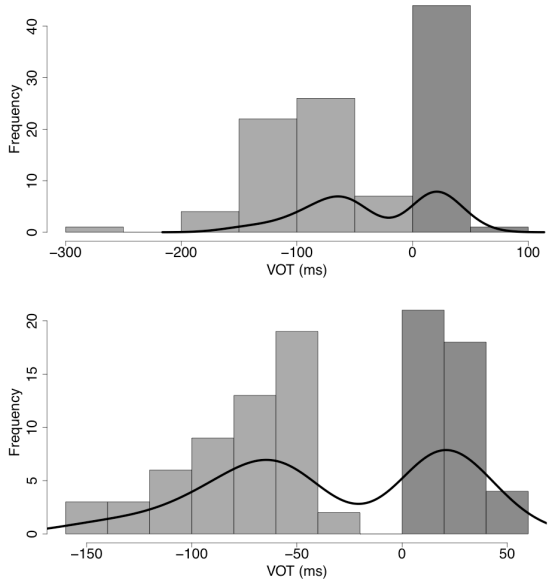

Figure 2: VOTs for "substituted" [d]: generation one (top) and two (bottom).

5 Style Shifting across Tasks

Negative attitudes toward foreign accents contribute to the suppression of substrate effects in formal contexts. Guy (1990) predicts substrate effects to be less frequent in formal styles because of their association with non-native and, thus, non-normative speech. In order to test whether TH-stopping is affected by style, eight of the original twelve speakers were recorded in tasks varying in formality (sociolinguistic interview, short story, word list). Stopping rates were expected to be the highest in the sociolinguistic interview (presumably the most informal context), and to decrease in the short story and even more so in the word list.

Figure 3 illustrates that TH-stopping manifests sharp stylistic differentiation. As expected, for most speakers, rates of stopping are the highest in the sociolinguistic interview. The short story also favors high stopping rates, possibly due to connected speech processes, as well as its casual tone. TH-stopping decreases drastically in the word list, however. This finding is in line with

Labov's (1966) data, where sharp stylistic differentiation was observed. Interestingly, even first generations speakers, Wojtek and Gosia, are successful at monitoring TH-stopping when the task becomes explicitly language-oriented. This suggests that Polish Americans are, to some degree, aware of the non-normative nature of TH-stopping. These data are supported by introspective commentary from interviews. For example, the Polish Americans in this study are quick to identify mispronunciations of interdental fricatives as a characteristic of a "Polish accent", and many of them are well aware of these substitutions in their own speech.

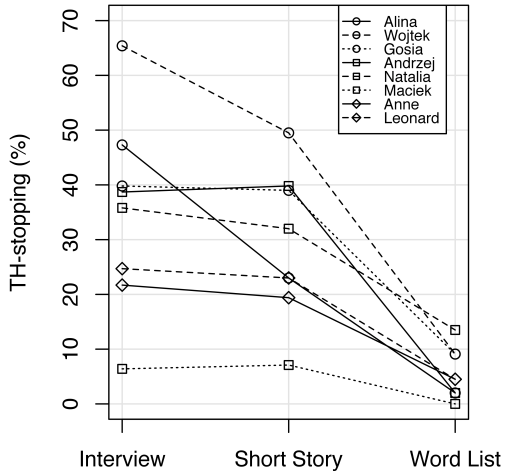

Figure 3: Stylistic variation in TH-stopping.

6 Cultural Orientation and Use of Polish

Eight of the original twelve speakers additionally participated in a survey that gauged (i) their orientation toward the Polish culture, and (ii) their use of and exposure to Polish. Cultural orientation was assessed through questions probing speakers' engagement in activities associated with a Polish lifestyle. Speakers self-reported if and how often (once a week, once a month, sometimes, never) they shopped at Polish delis, visited Polish-owned businesses (e.g., hair salons/barbers), dined at Polish bars or restaurants, attended Polish mass or Polish cultural events (e.g., parades, concerts, meet-ups). Lastly, speakers reported whether they had Polish American or Polish friends, and how many.

Use of Polish was estimated based on speakers' reported language choice in the above-mentioned settings. Whenever possible, questions in the first part of the survey were followed by a question probing language choice. For example, *Do you shop at Polish delis?* was immediately followed by *If yes, what language are you most likely to speak to the shop assistant?* Answer choices always included *Polish; English; Both languages*. Speakers also reported preferred language choice in interactions with extended family, parents, siblings, and friends. Use of Polish was additionally probed by questions about speakers' use of Polish media (e.g., websites, newspapers, or TV), such as the following: Do you ever visit Polish American websites, such as *bazaryn-ka.com, polonia.net, mylifeispolish.com*? Answer choices included: once a week, once a month, sometimes, never. Based on the answers to the survey, three separate scores were calculated for each speaker: one score for "cultural orientation", one for "use of Polish", and one was the sum of the other two scores ("total score"). Overall, respondents were able to score 38 points (16 for cultural orientation and 22 for use of Polish). Table 6 lists scores assigned to individual speakers, along with their average stopping rates.

The two highest total scores belong to the most frequent stoppers: Alina, a second generation female, and Wojtek, a first generation male. Speakers with low stopping rates cluster at the bottom range of all three scores, and score particularly low on cultural orientation. Stopping rates and survey scores seem to go hand in hand. In fact, correlation tests performed on stopping rates and each

score individually revealed a strong correlation between TH-stopping and Polish cultural orientation (r = .7), and a moderate correlation between TH-stopping and use of Polish (r = .6). This result suggests that an orientation toward Polish culture and a frequent use of Polish both affect TH-stopping. The strongest correlation, however, was observed between TH-stopping and the total score (r = .8), which suggests that neither survey component alone is as good of a predictor as a measure combining the two. The fact that the total score provides the best fit for stopping rates shows that the weight of each component varies for particular speakers. However, cultural orientation appears to matter the most in a few distinct cases. Notice that the three most frequent stoppers obtained an almost perfect score on cultural orientation (13-14 points out of 16).

Score/Speaker	**Alina**	**Wojtek**	**Natalia**	**Gosia**	**Anne**	**Andrzej**	**Maciek**	**Leonard**
Cultural orientation	14	13	14	7	8	6	4	6
Use of Polish	16	16.5	8	12	10	11	12	7.5
TOTAL	**30**	**29.5**	**22**	**19**	**18**	**17**	**16**	**13.5**
% TH-stopping	47.3	65.4	35.8	39.8	21.7	38.7	6.4	24.7

Table 6: Survey scores and stopping rates by speaker.

7 Discussion

The results presented in this paper suggest that TH-stopping in the speech of Polish Americans exhibits characteristics of a substrate effect as well as an ethnic marker. Substrate origins of TH-stopping are evident in the acoustic characteristics of stop productions. Stops derived from interdental fricatives differ acoustically from underlying stops. In particular, "substituted" [t] is unaspirated, and "substituted" [d] is often pre-voiced. TH-stopping, therefore, employs the Polish voicing contrast (negative VOT for [d] vs. short VOT for [t]), rather than the English one. TH-stopping also displays the generational pattern typically observed for substrate effects, with generation one exhibiting higher rates of stopping than generation two. This pattern, however, only holds for men. Both generations display sharp stylistic effects across tasks, in line with the expectation for substrate effects to be monitored in formal contexts (Guy 1990). Lastly, the linguistic conditioning of TH-stopping only partly supports its substrate nature, with stop productions being favored in a variety of perceptually salient and non-salient contexts.

TH-stopping in the speech of Polish Americans also shares some characteristics with ethnic markers. Most tellingly, high rates of stopping correlate robustly with a strong orientation toward the Polish culture. Frequent stoppers often engage in Polish cultural activities and have large numbers of Polish and Polish American friends in their social circles. In addition, a gendered pattern emerged for second generation speakers, with women favoring stopping. The female lead suggests that TH-stopping has acquired a new meaning in the community, arguably that of an ethnic marker. The emergence of this ethnic marker would reflect the changing position of Polish Americans in the host country, and would parallel the development of an "imagined" (Anderson 1983) unified Polish American community known in the U.S. and abroad as *Polonia*.

The history of Polish immigration to the U.S. dates as far back as the end of the 19th century (Pula 1994), but the concept of a Polish American community did not begin to develop until the 1970s. Prior to this period, Poles were focused on assimilation and the shedding of an ethnicity heavily stereotyped and stigmatized in their new country of residence (Bukowczyk 1986). An ethnic revival emerged in the 1970s, marked by the promotion of Polish culture and the fight against harmful stereotyping. Importantly, the Polish ethnic revival was set against the backdrop of the pan-American "new ethnicity" movement which valued cultural pluralism and spurred an appreciation for ethnic workers, their communities and cultures. As Bukowczyk (1986:120) puts it, "being 'ethnic' had become 'in'". Ethnic neighborhoods started gaining their residents' respect and ethnic festivals became scenes of ethnic pride.

All speakers in this study were born or grew up during the ethnic revival. Indeed, ideas that permeated the 70s and 80s reverberate in sociolinguistic interviews. Speakers who grew up in typically Polish areas express a sense of pride that reflects the changes these neighborhoods have un-

dergone. Kamil, for example, juxtaposes the sordid past of the Lower East Side, home to many Polish immigrants, with the hip status the neighborhood enjoys today:

> **Kamil**: I remember exactly like I came yesterday. It was during those days, you know, New York City, especially this area was very seedy, very dirty, very run down, you had bums all over the place. I mean, Bowery, which is third avenue, used to be, they said "if you don't make it in life you'll probably end up hanging out on the Bowery, that's where the bums hang out". And drinking, drinking the, um, you know, three dollar wine. So, yeah, this, this area was, was terrible, my parents first moved in on third street and second avenue, which was just horrible, I couldn't wait to move back! But then after a while we moved into like, we moved into Village View, which is a complex here, a hundred thirty six apartments, it was a complex that was built in 1964 to house, sort of, middle-income workers, and what, what happened was nobody wanted to live here because it was a bad neighborhood. Eventually, as the neighborhood started to get better, now people are dying to get in. We have a twenty-year waiting list for apartments there.

The resurgence of ethnic pride is also seen in people's lifestyles. Many of the speakers in this study attend Polish events, such as parades, concerts, or movie festivals. Some of them belong to Polish cultural organizations, or have even started those. In fact, Polish meet-up groups have sprung up in New York City in the past ten years and are very popular with young professionals. These meet-up groups, e.g., the Polish Happy Hour (founded in 2002) or Euro Nation (founded in 2007), organize monthly gatherings in popular clubs in New York City as a way to promote Polish culture, and to provide a means for Polish professionals to network and socialize with one another. This passage from Victor describes how much the Polish Happy Hour has grown since its inception, an observation echoed by several speakers in this study:

> **Victor**: You know, it's a meeting place. From the way I remember it, and from what it turns out now, it's changed a little bit. Some people think for the better, some people think for the worse. More people. So before you would barely fill up a small bar, now you fill up a club. Some socialize, some meet people, some people for drinks, some go for Polish people, some people for Polish music. So when you have venues, we have five hundred people, you can say there's something for everybody. But originally I think it started off as a place for Polish people, let's say, students, or working people to get together, and discuss our Polish heritage or just Polish stuff.

The ethnic revival that started when these speakers were growing up has left a lasting impression on their lifestyles. The speakers in this study talk about the Polish diaspora in New York as a community with similar (Polish) lifestyles and ideals. Strong communal ties might have led to the "recycling" of TH-stopping (Dubois and Horvath 1998) as an ethnic marker. The reasons for the female lead in TH-stopping requires further ethnographic work, but appears to be connected to the central role Polish women played in the establishment of ethnic communities, both as homemakers and community leaders (Radziłowski 1996, Znaniecka Lopata 1994). The involvement of Polish women in community building processes could have translated into their symbolic position as guardians of Polish culture and values. Women are now linguistic leaders of the ethnic revival, a more symbolic process, but one that involves community building, nonetheless.

8 Conclusion

TH-stopping, reported in the speech of working-class and immigrant groups across the U.S. (Wolfram 1969, Dubois and 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 produced by Italians, the Irish, and Poles (Babbitt 1896, Labov 1966). This paper presented evidence that suggests that TH-stopping in the contemporary

Polish community in New York City does pattern like a substrate effect, but one that has developed into an ethnic marker.

This work raises questions about the status of TH-stopping as a regional variable in NYCE. Since TH-stopping has been reported in the speech of a number of immigrant groups, it is an open question whether the process remains common to all immigrant groups, or if it has receded. Likewise, it remains to be verified whether the acoustic characterization of TH-stopping is also true for other ethnic groups in the City.

References

Anderson, Benedict. 1983. *Imagined Communities*. New York: Verso.

Babbitt, Eugene Howard. 1896. The language of the lower classes in New York City and vicinity. *Dialect Notes* 1:457-464.

Bell, Allan, and Andy Gibson. 2008. Stopping and Fronting in New Zealand Pasifika English. *U. Penn Working Papers in Linguistics 14.2*: *Selected Papers from NWAV 36*, 44-53.

Berent, Iris, Donca Steriade, Tracy Lennertz, and Vered Vaknin. 2007. What we know about what we have never heard: Evidence from perceptual illusions. *Cognition* 104:591-630.

Bukowczyk, John J. 1986. *And My Children Did Not Know Me*: *A History of the Polish-Americans*. Bloomington: Indiana University Press.

Childs, Becky, Paul De Decker, Rachel Deal, Tyler Kendall, Jennifer Thorburn, Maia Williamson, and Gerard Van Herk. 2010. Stop Signs: The Intersection of Interdental Fricatives and Identity in Newfoundland. *University of Pennsylvania Working Papers in Linguistics 16.2: Selected Papers from NWAV 38*, 26-35.

Clements, George N. 1990. The role of the Sonority Cycle in Core Syllabification. In *Laboratory Phonology 1*, ed. J. Kingston and M. Beckman. Cambridge: Cambridge University Press.

Dubois, Sylvie, and Barbara Horvath. 1998. Let's Tink about Dat: Interdental Fricatives in Cajun English. *Language Variation and Change* 10:245–61.

Dubois, Sylvie, and Barbara Horvath. 2000. When the music changes, you change too: Gender and language change in Cajun English. *Language Variation and Change* 11:287-313.

Fishman, Joshua. 1985. *The Rise and Fall of the Ethnic Revival: Perspectives on Language and Ethnicity*. Berlin: Mouton de Gruyter.

Guy, Gregory. 1990. The sociolinguistic types of language change. *Diachronica* 7:47-67.

Keating, Patricia A., Micheal J. Mikoś and William F. Ganong. 1981. A cross-language study of range of voice onset time in the perception of initial stop voicing. *Journal of the Acoustical Society of America* 70:1261-1271.

Labov, William. 1966. *The Social Stratification of English in New York City.* Washington, D.C.: Center for Applied Linguistics.

Lisker, Leigh and Arthur S. Abramson. 1964. A cross-language study of voicing in initial stops: Acoustical measurements. *Word* 20:384-422.

Mendoza-Denton, Norma. 2008. *Homegirls: Language and cultural practice among Latina youth gangs.* Malden, MA: Blackwell Publishing.

Pula, James S. 1995. *Polish Americans: An Ethnic Community*. New York: Twayne Publishers.

Radziłowski, Thaddeus C. 1996. Family, Women, and Gender: The Polish Experience. In *Polish Americans and Their History*: *Community, Culture, and Politics*, ed. J. Bukowczyk, 58-80. Pittsburgh: University of Pittsburg Press.

Rose, Mary. 2006. Language, place, and identity in later life. Unpublished PhD dissertation. Stanford: Stanford University.

Van Coetsem, Frans. 1988. *Loan phonology and the two transfer types in language contact*. Dordrecht: Foris.

Van Herk, Gerard, Becky Childs, and Jennifer Thorburn. 2007. Identity marking and affiliation in an urbanizing Newfoundland community. In *Papers from the 31st Annual Meeting of the Atlantic Provinces Linguistic Association*, ed. W. Cichocki, 85-94.

Wolfram, Walt. 1969. *A Sociolinguistic Description of Detroit Negro Speech*. Washington, DC: Center for Applied Linguistics.

Znaniecka Lopata, Helena. 1994. *Polish Americans*. New Brunswick: Transaction Publishers.

Department of Linguistics
New York University
New York, NY 10003
luiza.lukowicz@nyu.edu