

VOT in Heritage and Hong Kong Cantonese

Ziwen Tracy Tan & Naomi Nagy

University of Toronto

The common conception of heritage language speakers has long been that their speech production differs from that of homeland speakers. They are seen as either subject to more influence due to language contact (cf. Lee 2014) or exhibiting attrition due to limited exposure to their L1 during acquisition. For example, Wei and Lee (2001) conducted a study of British-born Chinese-English bilingual children. After analyzing several morphosyntactic patterns, they report

evidence of delayed and stagnated L1 development. The children are shown to have difficulties with specific Cantonese classifiers and quantifiers, which may be attributed to incomplete language learning and L2 influence (Wei & Li, 2001: 359).

However, many studies compare heritage speaker performance to a prescriptive standard rather than to language spontaneously produced by homeland speakers. Analyzing spontaneous speech from both heritage and homeland varieties, Nagy & Kochetov (2013) showed differences between heritage and homeland VOT for Russian speakers, but not Italian, leaving the question of heritage differences open. We are interested in knowing whether there are actual differences in performance between Hong Kong homeland and Toronto heritage speakers that would support claims of the type quoted above. The current study compares spontaneously produced speech data from two generations of heritage Cantonese speakers in Toronto and from homeland speakers in Hong Kong (a city where Cantonese is much more prevalent than English, CSD 2006). From transcribed speech recorded via a standard sociolinguistic interview protocol (Labov 1984) conducted in Cantonese by a fellow native speaker, we extracted 1,868 samples of word-initial stops (/p,t,k,b,d,g/) preceding back non-high vowels (/a,o/) in clear speech. The VOT, or duration from the burst to the beginning of voicing, was measured manually in Praat (Boersma & Weenink 2011). Linear regression analyses sought differences between Homeland and Heritage speakers and between first and second generation heritage speakers, as well as considering the effects of linguistic context (place and manner of articulation, following vowel, and vowel duration as a normalizer for speech rate). 17 speakers are included.

We find, counter to expectation, a *divergence* from English-like patterns. Voice Onset (VOT) patterns for voiceless aspirated word-initial Cantonese stops in the Homeland data hover right around the mean established for Canadian English (Fowler et al. 2008), while heritage speakers produce (non-significantly) shorter VOTs. For the plain voiceless series, again, the Homeland speakers produce patterns in Cantonese very similar to that found for Canadian English, while heritage speakers have longer VOTs, with the second generation diverging from the Homeland pattern more than the first generation. Thus, such patterns of variation, if they are indicative of change, are not straight-forward contact effects, but rather might be interpreted as efforts by bilingual speakers to further distinguish their two languages. In conjunction with previous studies of other variables utilizing the same corpus (null subjects, classifiers), a pattern emerges suggesting that this Cantonese heritage variety strongly resembles the homeland variety and that the expected features of attrition or contact-induced change are not found.

References

- Boersma, P. & D. Weenink. 2011. Praat: doing phonetics by computer. www.praat.org.
- Census and Statistics Department [CSD]. (2006). 2006 Population By-Census Summary Results. http://www.bycensus2006.gov.hk/FileManager/EN?content_962/06bc_summary_results.pdf.
- Fowler, C.A., V. Sramko, D.J. Ostry, S.A. Rowland & P. Hallé. (2008). Cross language phonetic influences on the speech of French-English bilinguals. *Journal of Phonetics*, 36, 649-63.
- Nagy, N. & A. Kochetov. 2013. VOT across the generations: A cross-linguistic study of contact-induced change. In P. Siemund, I. Gogolin, M. Schulz & J. Davydova, (eds.). *Multilingualism and language contact in urban areas: Acquisition - Development - Teaching - Communication*. (pp. 19-38). Amsterdam: John Benjamins.
- Labov, W. (1984). Field methods of the project on linguistic change and variation. In J. Baugh & J. Sherzer (eds.), *Language in use: Readings in sociolinguistics* (pp. 28-53). Englewood Cliffs, N.J.: Prentice-Hall.
- Lee, T. (2014). Dominant language transfer in the comprehension of L2 learners and heritage speakers. *International Journal of Applied Linguistics*, 26, 190-210.
- Wei, L., & Lee, S. (2001). L1 development in an L2 environment. *International Journal of Bilingual Education and Bilingualism* 4, 359-82.