

*Cross-linguistic interaction in the speech of Polish learners of English: Phonological implications*

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The present paper reports on a longitudinal study investigating cross-linguistic interaction (CLI) between L1 and L2 in the speech of first year Polish students of English. Unlike most research examining only the voiceless series of stops, the study included voiced stops as well. A group of 10 students read L1 and L2 word lists, comprising mono and disyllabic words starting with /p, t, k, b, d, g/. Recordings were made in October, February, and June of the participants' first year of university. The Polish productions were compared with the control group of 18 monolingual speakers.

The results suggest that the “correct”, unvoiced realisations of voiced plosives in English are progressively more common at successive recording sessions; pre-voicing durations also get shorter. In the voiceless series, the mean VOT values did not differ between testing times, but were longer than the participants’ Polish /p, t, k/ productions (Mean=60ms vs. 42ms respectively), suggesting early acquisition of English long-lag VOT.

In L1 Polish, no difference found between T1 and T2 ( $p=.06$ ); significant contrast was, however, observed between T1 and T3 ( $p=.002$ ) and T2 and T3 ( $p=.009$ ). Moreover, significant contrast between all testing sessions and the Control group was found. Interestingly, while no unvoiced items were produced at T1, such realisations were present at both T2 and T3. In the voiceless series, no drift effects were found.

In sum, our L2 results suggest that at the start of their first year, the participants had already acquired English-style long-lag VOT, while the acquisition of unvoiced lenis plosives came later. In L1, it appears that the voiced series is subject to more L2-induced phonetic drift (Chang 2012) than the voiceless series. According to Flege’s (1995) *Speech Learning Model*, CLI, manifested in both L1 and L2 productions, is due to ‘equivalence classification’, by which speakers classify the L1 and L2 sounds as instances of the same category. The asymmetry between voiced and voiceless plosives in our study supports the laryngeal typology proposed by Schwartz (2017), in which /b, d, g/ are phonologically identical (=unspecified) in Polish and English. Contrarily, /p, t, k/ are represented differently, and as a result are more ‘stable’.

**References:**

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