

Exploring the patterns of cross-linguistic influence in the acquisition of stops by L1 Polish – L2 English – L3 Norwegian speakers

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Although acquisition of stops in multilingual learners has been investigated quite extensively, most studies tend to focus on the voiceless category (e.g., Sypiańska 2013, Wrembel 2015, Llama & Lopez-Morelos 2016) whereas the voiced one remains largely unexplored. However, evidence from research on L2 (Wojtkowiak & Schwartz 2019) and L3 (Gabriel et al. 2018) suggests some asymmetry in acquisition of voiced stops. The aim of this study is to fill this gap by analysing the production of both categories of stops (/p, t, k/ and /b, d, g/) in all three languages of L1 Polish – L2 English – L3 Norwegian speakers and to explore their cross-linguistic interactions. Twelve participants, aged 21, performed a reading task of three word lists separately for each language including stop tokens in stressed onset positions controlled for vocalic context. They were asked to record the tokens presented on slides remotely on their smartphones due to COVID restrictions. Moreover, baseline VOT values were obtained from 4 Norwegian controls. The acoustic analysis was performed in Praat (Boersma & Weenink 2021) and VOT durations were extracted with the use of Praat script (Lennes 2002).

A factorial ANOVA was run to investigate the differences in VOT, with language, place of articulation (PoA), voicing and group as fixed factors. Statistically significant main effects were found for language and PoA only for the voiceless series. A Bonferroni post hoc test revealed significant differences between all three PoA and languages. These results suggest that when it comes to the voiceless stops, the trilingual learners keep their systems apart, while it was not the case for voiced ones. The results based on descriptive statistics show that VOT values for L3 Norwegian stops fall in between those of Polish and English for the voiceless series and exceed Polish and English values when it comes to the voiced ones.

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