Effects of simultaneous bilingualism and speech style on allophonic variation: A study of the Finland-Swedish front rounded vowels [ø:] and [œ:]

Janine A.E. Strandberg, Charlotte Gooskens, and Anja Schüppert Center for Language and Cognition Groningen (CLCG), University of Groningen

This study examines sociophonetic variation and change in Finland-Swedish, a variety of Swedish spoken by 290,000 native speakers in Finland. In the last century, urbanisation of historically Swedish speaking regions in Finland has resulted in increasing dominance of Finnish in society and, consequently, growing bilingualism within the Finland-Swedish community. The study, which is one of the first to investigate variation in Finland-Swedish using acoustic analysis, explores crosslinguistic transfer in the phonetic variants of /ø:/ in speech produced by simultaneous bilingual Finland-Swedish individuals. In Swedish, the phoneme $|\emptyset|$ can be realised as the allophones $[\emptyset]$ and $[\infty]$, while in Finnish, only $[\emptyset]$ is used. We investigate whether influence from Finnish may lead to decreased distinction between the allophones for simultaneous Finnish and Finland- Swedish bilinguals, examining transfer through the Speech Learning Model framework (Flege, 1995; 2007) by observing possible interactions between bilinguals' two languages in their phonetic space. Acoustic analysis is used to compare height and fronting of allophones [ø:] and [œ:] produced by 115 participants in three speech styles on a continuum of formality (Labov, 2006). The statistical analysis indicates increased overlap of [\varrho:] and [\varrho:] in the vowel spaces of bilingual speakers, who produced $[\emptyset]$ with higher F_1 and lower F_2 values and $[\mathfrak{G}]$ with lower F_1 and higher F_2 values compared to monolingual participants, particularly in spontaneous, informal speech. The results suggest a potential effect of Finnish phonetic transfer in the production of Finland-Swedish allophones by simultaneous bilinguals in the form of partial category assimilation of Finnish and Finland-Swedish /ø:/. Additionally, the findings highlight the importance of considering intra-speaker variation in bilingual transfer research.

References

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