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The effects of instruction on the realization of German vowels in L2 speakers of German

A perennial issue in second language acquisition (SLA) is the incomplete acquisition of native-like pronunciation. The phenomenon has been studied in several different frameworks. Contrastive Analysis assumes that a speaker's first language (L1) will transfer to structures in the second language (L2), and that things that are similar to the L1 will be learned more easily than things that are dissimilar to the L1, due to interference. Language universals, and the predictions that stem from them are useful, but cannot completely predict the course of acquisition of L2 phonology (Celce-Murcia, 1996). As a reaction to the finding that sounds that were more dissimilar in an L2 were actually easier to acquire for L2 learners than those that were similar, James Flege developed the Speech Learning Model (SLM), in order "to account for how individuals learn –or fail to learn –to produce and perceive phonetic segments (vowels, consonants) in a second language." (Flege, 2005). Jacewicz (1999) found results consistent with the SLM, namely that English L1 speakers of L2 German had vowel spaces that varied considerably from standard German norms for similar vowels, yet for sounds that did not exist in English, such as [ʏ], the L2 learners' vowel space was closer to the target.

In this study, we investigate the effects of pronunciation training on the realization of the German vowels a, e:, ə, and i by English native speakers. We also investigate whether the L2 speakers show evidence of a merged phonological category for each of these sounds, since some are very similar to their counterparts in English. The study examines the pronunciation of these vowels by first semester university students learning German. Each learner was asked to pronounce words individually in German. Formant frequencies (F1 and F2) and vowel duration were measured with PRAAT and results were compared between groups and with native speaker averages. The L2 pronunciation of German vowels had different formant frequencies than that of native German speakers, but possible evidence of a merged phonological category between English and German was found for some vowels, such as a. Lastly, there was also evidence that learners create more target like sounds after training, specifically in reference to vowel duration.

#### References:

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