The Awfully Elusive German Language: In Search of a Property Theory of Mid and Back Continuants

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German mid and back continuants [s ʃ ʒ ç x χ ʁ h], especially alternation of [ç] and [x/χ] due to dorsal fricative assimilation (DFA), are well-known in German linguistic research; e.g., [11]. Given the prominence of German as a foreign language in the United States [3], their representation and perception are of interest to research in second language (L2) phonology.

Research on mid and back continuants arises in numerous fields. Phonetic investigations comparing these sounds to each other [7, 9] or to similar sounds in other languages, e.g., [2], are rare and not exhaustive--often, [h] and other back fricatives are omitted. Psycholinguistic (e.g., phoneme detection, [10]) and neurolinguistic (e.g., event-related potentials, [8]) studies provide evidence that German native speakers (NS) are sensitive to violations of DFA in auditory stimuli; however, due to differences in task design, divergent results, and dialectal variation [4], the psychological status of this alternation remains unclear. Characterization of the representation of /h/ as a consonant also differs between theories, including lack of phonological Place, Pharyngeal Place, or either (not both), with implications for *all* back continuants [1, 5, 6].

Results of a [t]-detection experiment with nonwords featuring fricatives [ç x h] in a (C)CV_t frame (e.g., [gaxt gɛçt], *[gaçt gɛxt], and *[gaht gɛht]) are reported for NSs and early L2 adult learners. Surprisingly, NSs showed no consistent processing effect in response to violations of DFA and only a marginal trend toward slower reaction time (RT) for [h] appearing illicitly in syllable codas. In contrast, L2 learners showed a marginal trend toward faster RT for DFA violations and robustly slower RT for Coda-[h]. These results and previous theoretical and experimental research informs specific recommendations for future L1 and L2 German research.

References

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