

Phonemes, allophones and features in the acquisition of L2 phonology

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The first hurdle in the acquisition of the L2 phonological system is the perception of its minimal units by the foreign learner: once the minimal units are perceived, more or less accurate underlying representations may be built, and – further – a more or less accurate phonetic representation will be generated. In this paper, the question is addressed about the minimal unit in the acquisition of L2 phonology.

L2 phonology is still a largely understudied branch of linguistics. The two dominating approaches to the question above are the ones that view the acquisition of L2 phonology in terms of segments or phonemes (Perceptual Assimilation Model, e.g., Best, McRoberts and Sithole 1988; Speech Learning Model, e.g., Flege 1987), or in terms of distinctive features (e.g. Brannen 2002). One could distinguish between the two major approaches by studying the patterns of misperceptions in L2 learners. In particular, if learners in a regular fashion score better in the perception of segments which constitute a natural class, i.e. share certain distinctive features, this is an argument for the featural approach. The lack of such a regularity indirectly points to the phonemic approach. A research program along these lines has been conducted by Ken de Jong and colleagues, who have studied phoneme identification by the Korean L2 learners of English (e.g. Silbert, de Jong and Park 2007, Park and de Jong 2005). Their results seem, however, inconclusive. Yet another logical possibility is that the patterns of perception learning reflect properties of L2 segments in terms of low level phonetic features or perceptual cues (cf. Hamann, to appear) and their relation to the listener's L1 perceptual strategies. In relation to this question, one would like to see if there is a regular distinction in the perception of phonemes which are completely new, and those which appear in L1 as allophones. Easy acquisition of L2 phonemes that appear in L1 as allophones, would suggest the involvement of phonetically-based rather than classical distinctive features.

Polish and Croatian are a pair of languages that provide an excellent testing ground to look into more of the above questions. First, Croatian – like Polish – has the contrast between post-alveolar retroflex-like /š, ž, tš, dž/ and prepalatal /tɕ, dʑ/. Crucially, Croatian lacks phonemes /ɕ, ʑ/ (which are present in Polish), which however, may appear in Croatian as allophones of /š/ and /ž/, respectively. Another interesting property of Croatian is the lack of a labio-velar glide /w/. Croatian lacks also a voiced labio-dental fricative /v/, and instead of the contrast between voiced and voiceless labio-dental fricatives as in Polish, it contrasts a voiced labio-dental approximant with a voiceless fricative. We expect that the pattern of the identification of Polish prepalatals and of the Polish labial /w-v-f/ contrast by Croatian speakers will bear upon the nature of the unit that is actually acquired in the acquisition of L2 phonology.

In this paper, the results of perceptual discrimination tests of Polish speech sounds by Croatian native-speakers (naïve, as well as trained for the discrimination of the relevant distinctions) will be presented and evaluated.

References

- Best, C. T., McRoberts, G. W. and Sithole, N. M. 1988. Examination of Perceptual Reorganization for Nonnative Speech Contrasts: Zulu Click Discrimination by English Speaking Adults and Infants. *Journal of Experimental Psychology: Human Perception and Performance*, 14(3), 345-360.
- Flege, J. E. 1987. The production of “new” and “similar” phones in a foreign language: Evidence for the effect of equivalence classification. *Journal of Phonetics*, 15, 47-65.
- Brannen, K. 2002. The role of perception in differential substitution. *Canadian Journal of Linguistics*, 47(1/2), 1-46.
- Silbert, N., de Jong, K., and Park, H. 2007. Linguistic generalization in L2 consonant identification accuracy: a preliminary report. *Indiana University Working Papers in Linguistics Online*.
- Park, H., and de Jong, K. 2005. Native Koreans’ perception of voicing in VC position: Prosodic restructuring effects on consonant identification. *Indiana University Working Papers in Linguistics Online*.
- Hamann, S. (to appear) Variation in the perception of an L2 contrast: A combined phonetic and phonological account. In: C. Fery and F. K ugler (eds.), *Variation and Gradience in Phonetics and Phonology*. Berlin: Mouton de Gruyter.