Identification of Japanese contrasts by Korean learners
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In this project, several experiments were conducted in order to examine cross-linguistic influence in L3 speech perception. A group of Korean native speakers learning Japanese at an introductory level participated in a forced-choice identification experiment involving various Japanese contrasts. The participants also participated in a forced-choice English minimal pair identification experiment. All participants had studied English as an L2 prior to beginning their study of Japanese as an L3. Additionally, a group of monolingual English listeners participated in a similar experiment testing their perception of Japanese contrasts, to determine for which contrasts knowledge of English might provide a benefit.

Previous research has shown different types of cross-linguistic influence in L3 learning. Hammarberg (2001) and Bardel and Falk (2007), for example, demonstrated that L2 has a stronger influence than L1. The reason is considered to be because L3 learners tend to associate L2 and L3 cognitively as foreign languages. If the Korean participants' L2 has a predominant influence, an increased knowledge in English (L2) is expected to facilitate the perception of Japanese (L3) contrasts which are not difficult for English speakers. If L2 has a predominant influence, however, an increased knowledge in English is also expected to interfere with the perception of contrasts which are difficult for English speakers. The Cumulative-Enhancement Model (Flynn et al., 2004), on the other hand, argues that both L1 and L2 act as a source of positive influence in L3 learning. If the Cumulative-Enhancement Model is correct, the Korean participants are expected to experience a positive influence both from Korean and from English in the perception of Japanese contrasts. This model also predicts that non-native speech perception gets easier as a learner learns more languages.

Correlations between the Korean participants' performance on the Japanese identification experiment and on English minimal pair experiment were examined in order to investigate whether the increased knowledge of English (L2) has an influence on the identification of Japanese (L3) contrasts. The results of the correlation analyses indicated that the better the Korean participants distinguished the English minimal pairs, the better they also distinguished Japanese voiced and voiceless stops in word-initial position in the forced-choice identification task. The voicing contrast in word-initial position in Japanese is known to be very difficult for Korean native speakers, but not for English native speakers. Such a result implies that language learners can refer to the phonological categories of all of their background languages when identifying L3 categories. However, this result was limited to a single distinction out of the eight distinctions tested.

These results nevertheless suggest that perceptual performance in the L2 is related to perception in the L3. It is especially important to note that when an experiment directly evaluates how well the target contrasts are distinguished (i.e., an identification task), the level of phonological knowledge in the L2 seems to aid the identification of L3 contrasts that are supposedly difficult for monolingual speakers of the L1 but not for native speakers of the L2. Such knowledge does not, however, interfere with the perception of target contrasts which are difficult for the native speakers of the L2. That is, the increased level of perceptual performance in L2 does not prevent the use of knowledge from L1. This pattern supports the idea embodied in the Cumulative-Enhancement Model.