

Effects of Korean Syllable Structure on English Pronunciation

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Abstract

It has been widely discussed in phonology that syllable structure of mother tongue influences one's acquisition of foreign language. However, the topic was hardly examined experimentally. So, we investigated effects of Korean syllable structure when Korean speakers pronounce English words, especially focusing on consonant strings that are not allowed in Korean.

In the experiment, all the subjects are divided into 3 groups, that is, native, experienced, and inexperienced speakers. Native group consists of 1 male English native speaker. Experienced and inexperienced are each composed of 3 male Korean speakers. These 2 groups are divided by the length of residence in the country using English as a native language.

41 mono-syllable words are prepared considering the position (onset vs. coda), characteristic (stops, affricates, fricatives), and number of consonant. Then, the length of the consonant cluster is measured. To eliminate tempo effect, the measured length is normalized using the length of the word 'say' in the carrier sentence. Measurement of consonant cluster is the relative time period between the initiation of energy (onset / coda) which is acoustically representative of noise (consonant portion) and voicing bar (vowel portion) in a syllable. Statistical method is used to estimate the differences among 3 groups. For each word, analysis of variance (ANOVA) and Post Hoc tests are carried out.