Perception of Release and Voicing of
English Word-final Stops by Korean Speakers

This study reports on a perception experiment designed to examine whether Korean listeners hear an illusory vowel after a word-final stop of English. Korean speakers often insert a vowel after a final stop in English borrowed words (e.g., `rope` is pronounced as `[lopʰi]`) although voiceless stops are permissible in coda position in Korean. This insertion has been claimed to be motivated by the fact that final stops may be released in English but not in Korean. Kang (2003) has argued that Korean speakers hear the released stop and substitute the perceptually closest structure in Korean, which is stop followed by vowel. Kang’s perceptual similarity approach makes the prediction that when Korean speakers hear a monosyllabic word with a final stop, they will accurately perceive this word as monosyllabic. Because the closest legal Korean structure to a final released or final voiced stop is stop-V, they will insert a vowel after final released and final voiced stops but not after final unreleased voiceless stops.

However, no research has investigated an alternative explanation: Korean speakers interpret the acoustic cues of release and voicing as an illusory vowel (in the sense of Dupoux et al. 1999; Peperkamp et al. 2008; Broselow 2009, and others). My hypothesis is that the vowel insertion shown in Korean loanwords from English actually results from Korean speakers’ misperception, not from their mispronunciation. The present study uses a syllable counting task (Coetzee 2010) to find additional data to help decide between Kang’s ‘accurate perception’ account and the misperception account I am proposing in this paper.

The results reveal that Korean listeners were significantly more likely to identify an English-like monosyllabic pseudoword as multisyllabic in the following cases:

i) when the pseudoword ended in a *released* final stop than when it ended in an *unreleased* stop (Figure 1), and

ii) when the pseudoword ended in a *voiced* stop than when it ended in a *voiceless* stop (Figure 2); yet, the voicing effect was found only with unreleased stops (Figure 3).

The results confirm my hypothesis: Korean listeners’ tendency to insert a vowel after an English word-final stop arises from their misperception of the English words rather than from a production grammar maintaining perceptual similarity between the English
form and the Korean pronunciation, as argued by Kang (2003).

Figure 1. Frequency of multisyllabic responses according to release of the final stop (p<.0001)

Figure 2. Frequency of multisyllabic responses according to voicing of the final stop (p<.001)

Figure 3. Multisyllabic response percent according to release and voicing of the final stop (p<.001)