

**Supralaryngeal targets of laryngeal and length contrasts  
in Japanese and Korean: An EPG study**

This study investigates supralaryngeal characteristics of length and laryngeal contrasts in Japanese and Korean stops and affricates (/t:,t,d,tɕ:,tɕ,dʑ/ and /t\*,t<sup>h</sup>,t,ts\*,ts<sup>h</sup>,ts/). Electropalatography data collected from 5 Japanese and 3 Korean speakers revealed similar differences among the consonants in the degree of linguopalatal contact and duration of the closure. Japanese (voiceless) geminate and Korean fortis obstruents were most constricted and had the longest duration. Japanese voiced and Korean lenis obstruents were least constricted and had the shortest duration. Japanese voiceless (singleton) and Korean aspirated obstruents showed intermediate degree of contact and duration. Both stops and affricates showed a positive correlation between degree of contact and duration. The results are consistent with previous findings on Japanese and Korean consonants, and suggest that obstruents in two languages have a similar set of supralaryngeal 'virtual targets' (Löfqvist & Gracco, 1997). Importantly, these targets are distinct for the three length/laryngeal categories: geminate/fortis, voiceless/aspirated, and voiced/lenis (cf. Löfqvist, 2006 on Japanese labials; Brunner et al., 2011 on Korean velars). The observed differences in constriction degree and duration are suggested to arise from similar physiological pressures exerted on phonemic length and laryngeal contrasts (Kohler, 1984; Son et al., 2012), and have been attested in other languages with similar contrasts.