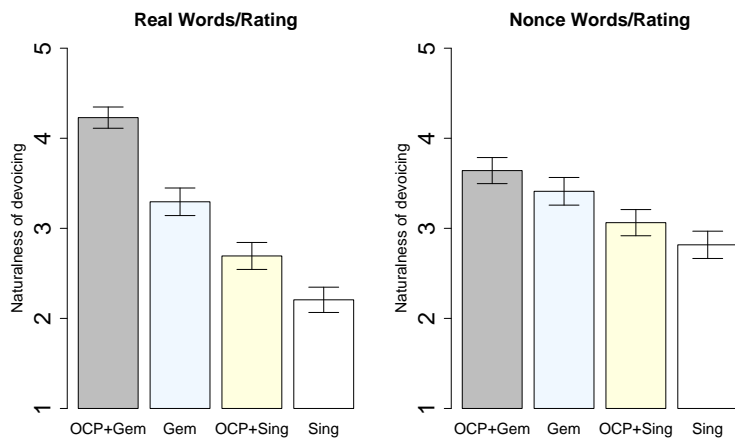


**SYNOPSIS:** Lyman's Law (Lyman 1984) prohibits two voiced obstruents within the same stem, and this law has been believed to hold only in native words in Japanese. This paper reports judgment experiments which show that Lyman's Law is in fact active in loan and nonce words as well.

**BACKGROUND:** One factor that blocks Rendaku is Lyman's Law: Rendaku is blocked when the second member already contains a voiced obstruent (e.g. /nise+tokage/ → [nisetokage]). Lyman's Law has been formalized as a general phonotactic restriction, OCP(voice), which prohibits two voiced obstruents within the same stem (Ito & Mester 1986). OCP however is believed to hold only in native words, because many loanwords do not obey OCP (e.g. [b<sup>h</sup>agu]) (Ito & Mester 1995, 1999). However, Vance (1980) showed that OCP blocks Rendaku in wug-testing, and Nishimura (2003) also showed that OCP coerces devoicing of geminates (e.g. [doggu]→[dokku]) in loanwords. Building on these observations, especially the latter, the current experiments show that Japanese speakers judge devoicing of voiced stops more natural when devoicing resolves violations of OCP.

**METHOD:** Native speakers made grammatical judgments about devoicing. The four conditions were OCP-violating geminates, non-OCP-violating geminates, OCP-violating singletons and non-OCP-violating singletons. Nine real loanwords and nine nonce words were used for each condition. Participants were presented with a word (e.g. [doggu]) and a corresponding form with devoicing (e.g. [dokku]). In Experiment I, 37 participants judged the naturalness of devoicing on a 5-point scale; in Experiment II, 32 participants judged the possibility of devoicing in a yes/no format.

**RESULTS AND DISCUSSION:** The figure illustrates the results of Experiment I; each graph compares the naturalness of devoicing of OCP-violating geminates, non-OCP-violating geminates, OCP-violating singletons and non-OCP violating geminates. Both in real loanwords (left Fig.) and nonce words (right Fig.) and both for geminates (first two bars) and singletons (last two bars), speakers judged devoicing more natural when the consonants violate OCP ( $t = 5.29, p < .001$ ). The results of Experiment 2 (not shown due to space limitation) showed exactly the same patterns.



**SUMMARY** Although Lyman's Law has been believed to hold only for native words (Ito & Mester 1995), Lyman's Law does affect judgments of devoicing in nonce words and loanwords, both for geminates and singletons. One general implication of this study is that a phonological restriction with lexical exceptions, like Lyman's Law, can still actively affect native speakers' judgments.