

A diachronic account of consonant gemination in Japanese loanword phonology

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In Japanese loanwords from English, consonant gemination occurs when the source word consists of a sequence of lax vowel + obstruent (Ohye 1967). The sequence is more likely to be geminated word-finally than word-medially. While gemination of voiced obstruents is avoided in Japanese native vocabulary, it is allowed in loanwords.

E. *pet* => J. *petto* E. *bed* => J. *beddo*

The motivation for gemination in loanwords has been discussed from several points of view: Perceptual, syllabic, and prosodic factors. However, problem is that loanword geminates show an asymmetric distribution, preventing a consistent analysis and interpretation.

Loan / Source	/p/	/t/	/k/	/tʃ/	/ts/	/f/	/θ/	/s/	/ʃ/	/b/	/d/	/g/	/dʒ/	/dz/
Geminate	✓	✓	✓	✓	✓				✓		✓	✓	✓	✓
Singleton							✓	✓	✓	✓		✓	✓	

In this presentation, we argue that the asymmetries in loanword gemination are the results of diachronic change, and that they can be analyzed and interpreted from a diachronic perspective. It has been pointed out that geminates in specific environments changed/are changing into singleton over time (Crawford 2009). In other words, the asymmetric consonants were geminated in the early stage, but they became to be adapted as singletons as time goes by.

E. *knob* => J. *nobbu* > *nobu* E. *kiss* => J. *kissu* > *kisu*

Following Crawford (2009), we collected the data from a web dictionary, and used a paper dictionary to make sure of the date of attestation of the early and recent forms of loanwords. Although the previous works showed evidence of the diachronic "anti-gemination" only in voiced stops [b d g], we found that voiceless fricatives [f θ s], and word-medial voiceless stops [p t k] are also subject to the change.

/nab/ knob	MAX-CODAwf	*VOICEDCODA
nobu	*!	
=> nobbu		*

/nab/ knob	*VOICEDCODA	MAX-CODAwf
=> nobu		*
nobbu	*!	

Within an OT framework, these diachronic changes in loanword gemination indicate re-ranking of the constraints. The highly-ranked constraint which requires loanwords to be geminated has been/is being demoted to a lower rank over time. This account supports the argument of Yamane & Tanaka (2002) that diachronic change takes place with demotion of faithfulness constraints, or promotion of markedness constraints. It might also have significant implication for the theory of Japanese lexical stratification (Itô & Mester's 1995).

References

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