

# DEGEMINATION IN JAPANESE LOANWORDS FROM ITALIAN

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In Japanese native phonology, geminate consonants are contrastive (as in [kata] ‘shoulder’ vs. [katta] ‘win-PAST’), but geminates in loanwords can have differing sources and motivations (see Kubozono, Itô, Mester 2009, Kawagoe 2015, and references cited therein): we see gemination of singletons in loanwords from English, in which consonant length is not distinctive ([kæt]<sub>Eng</sub> ‘cat’ → [kjatto]<sub>Jp</sub>), whereas we see geminate-preservation in loanwords from Italian ([espresso]<sub>It</sub> ‘espresso’ → [esupuresso]<sub>Jp</sub>), in which the length of most consonants is contrastive. In loanwords from Italian, however, not all geminates are preserved. This research addresses the cases of degemination, and captures the pattern as stress-based neutralization of consonant length within the framework of Optimality Theory (Prince & Smolensky 1993).

## 1. THE PUZZLE

In loanwords from Italian, as pointed out by Tanaka (2007), the preservation rate for geminates that belong to the penultimate or antepenultimate syllable is higher compared to the other positions within a word. This positional effect on degemination is present in loanwords that include more than one geminate within a word, illustrated below (capital letters indicate the first half of long consonants and the acute accent mark signals stress in Italian and pitch accent in Japanese):

(1)	Italian source		Japanese loan	
	a. zuK.kóT.to	→	zu.kóT.to	<i>zuccotto</i> (a type of cake)
	b. oreK.kjéT.te	→	o.re.ki.éT.te	<i>orecchiette</i> (a type of pasta)
	c. kaF.feL.láT.te	→	ka.fe.ráT.te	<i>caffè latte</i> ‘caffè latte’

## 2. THE PROPOSAL

Drawing attention to the fact that the penultimate and the antepenultimate syllables are the most common locations for Italian noun stress and Japanese pitch accent for loanwords to be assigned to, the current analysis views this positional effect on degemination as stress-based positional neutralization. Namely, a geminate is protected from degemination if the mora associated with the consonant is dominated by a prominent syllable. Given the data points such as in (2), I propose that it is the Italian stress, rather than the Japanese pitch-accent, that is responsible for the protection of a geminate in borrowings from Italian.

(2)	Italian source		Japanese loan	
	a. suP.plí	→	sú.pu.ri	<i>suppli</i> (a type of rice croquette)
	b. maT.téo →	má.te.o	<i>Matteo</i>	(personal name)
	c. píK.ko.lo	→	piK.ko.ro-	<i>piccolo</i> (musical instrument)

The analysis assumes an Output-Output correspondence relationship (McCarthy and Prince 1995) between the source forms and their loans, taking the fully prosodified Italian output form as input to the Japanese loanword adaptation process. The dependence of geminate preservation on the stressed status of a syllable in the Italian form can be

captured by appealing to Beckman (1998)'s general schema for positional faithfulness: this falls out from the interaction of positionally specified faithfulness constraint and a general ban on geminates, as ranked in (3).

(3) IDENT-'σ[μ] » NOGEM » IDENT[μ]

IDENT[μ] requires that output segments match the moraic specifications of their input correspondents, and IDENT-'σ[μ] requires that input segments in a stressed syllable and their output correspondent have identical moraic specifications. The markedness constraint NOGEM is violated for each geminate in the output. Because this is O-O correspondence, the positionally specified faithfulness constraint departs from Beckman's stress-based faithfulness constraints in that the prominent position it refers to exists not in the output, but in the input (i.e. the Italian output).

### 3. VARIATION AND A FURTHER COMPLICATION

Degemination in loanwords from Italian is often accompanied by optional compensatory lengthening of the preceding vowel. The research considers the compensatory lengthening for liquid geminates ([ta.ráL.li]<sub>It</sub> 'taralli' → [ta.rá:ri]<sub>Jp</sub>), and provides the following subhierarchy.

(4) MAX-'σ[μ], NOGEM[R] » MAX[μ]

MAX[μ] ensures the preservation of weight in a syllable, and MAX-'σ[μ] requires that the weight be preserved in a stressed syllable. NOGEM[R] is a ban on liquid geminates, and is assumed to be universally ranked above NOGEM, given the correlation between the markedness of geminates and the sonority hierarchy (Kawahara 2007). The research reports on a nonce-adaptation survey conducted online to observe the effect of position and geminate types on degemination.

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