

### Loanword Accentuation in Japanese

This study analyzes the accentuation and the pitch pattern of English loanwords in both Tokyo Japanese (TJ) and Kansai Japanese (KJ) in the framework of Optimality Theory (Prince and Smolensky 1993). The present study reveals that (i) TJ and KJ are the same in terms of the locus of the accent, (ii) the default accent pattern is English accent, i.e. the accent on the syllable stressed in the English, (iii) TJ and KJ are different in terms of the pitch pattern, and (iv) the constraints  $*/HH$  and  $*/LL$ , which are members of the constraint family OCP, play crucial roles in TJ while  $*/LL$  and  $LH'$  are significant in KJ.

Based on McCawley's Observation (1968), it has been said in the literature that the default loanword accentuation pattern in Japanese is the antepenultimate accent. However, only 618 words out of 978 accented English loanwords in TJ (63.2%) and 615 words out of 960 in KJ (64.1%) have the antepenultimate accent while 756 words in TJ (77.3%) and 739 words (77.0%) in KJ have English accent. This fact suggests that English accent is the default accent. Interestingly, 176 words out of 222 words that do not have English accent in TJ (79.3%) and 179 words out of 221 in KJ (81.0%) have the antepenultimate accent. That is, the English accent moves onto the syllable containing the antepenultimate mora when loanwords cannot have English accent. The next question to be considered is: What triggers the accent movement? The corpus shows that 57 words out of 978 accented loanwords in TJ (5.8%) and 66 words out of 960 in KJ (6.9%) have the accent on the left side of the penultimate foot. That is, accent on the left side of the penultimate foot is highly disfavored in both TJ and KJ. Based on this fact, I assume that the accent movement occurs due to the constraint  $*Accent(L, Penult F)$ , which prohibits the accent on the left side of the penultimate foot. This type of restriction on loanword accentuation is observed cross-linguistically. Ono (1991) studies the accentuation of loanwords in English, Russian, Turkish, Polish, and Macedonian and finds that the accents on loanwords in those languages can appear only on the right side of the preantepenultimate syllable. In other words, no language allows the accent on the loanword on the left side of the penultimate foot. The locus of the accent of loanword in TJ and KJ can be explained as illustrated in (1).

Next, let us consider the pitch pattern. Japanese is considered a pitch-accent language, which means that the pitch pattern of the whole word is predictable given the locus of the accent of the word. It has been said in the literature, however, that the pitch pattern of the whole word in KJ is not predictable because of the two possible word-initial pitches, high and low, whereas the pitch pattern in TJ is predictable. The present study shows that the pitch pattern of the loanword in KJ is predictable and can be explained as follows. Among 960 accented loanwords in the corpus, 343 words (35.7%) have the word-initial low pitch whereas 617 words (64.3%) have the word-initial high pitch. This fact reveals that the word-initial low pitch is avoided. As illustrated in (2), 258 words out of 343 loanwords with word-initial low pitch (75.2%) have the accent on the second mora, while the loanwords with word-initial high pitch never have the accent on the second mora. The word-initial low pitch is possible due to the constraint  $LH'$ , which maximizes the prominence of the accent. In TJ, on the other hand, the word-initial pitch and the second pitch must be distinct. The pitch pattern in TJ can be explained by the two highest ranked constraints  $*/HH$  and  $*/LL$ , which are members of the constraint family OCP. The six constraints including  $LH'$ ,  $*/HH$ , and  $*/LL$  determine the pitch pattern of loanwords in TJ and KJ (see (3) and (4)).

This study reaches five conclusions and findings. First, the default accent pattern of loanwords in both TJ and KJ is English accent, although it has been said in the literature that the default loanword accent pattern in Japanese is the antepenultimate accent. Second, English accent move onto the antepenultimate accent when the English accent is on the left side of the penultimate foot. The constraint  $*Accent(L, Penult F)$  explains the accent movement. Third, the word-initial pitch of loanwords in KJ is predictable. Loanwords can have word-initial low pitch when the accent is on the second mora. This phenomenon is due to the constraint  $LH'$ . Fourth,  $*/HH$ , and  $*/LL$  play significant roles in determining the pitch pattern of English loanwords in TJ. Finally, the constraint ranking (5) and (6) account for the locus of the accent and the pitch pattern of English loanwords in TJ and KJ, respectively.

(1) Non-English Accent Type

Input:	Accent (prominent $\mu$ )	*Accent (L, Penult F)	FaithLoc (Accent)	NonFin	Rightmost
journalism					
a. (jaa')(nari)(zumu)	*!	*	*		****
b. (ja'a)(nari)(zumu)		*!			****
c. (jaa)(nari')(zumu)			*		**
d. (jaa)(nari)(zu'mu)			*	*!	*

(2) The distribution of the accented morae in KJ

	1	2	3	4	5	6	7	8	9		
H	457	0	94	50	14	2	0	0	0	617	960
L	0	258	62	20	3	0	0	0	0	343	
	457	258	156	70	17	2	0	0	0	960	

The top row shows the location of the accented mora (i.e. '1' = the accent on the first mora...), while the leftmost column indicates the word-initial pitch ('H' = high and 'L' = low).

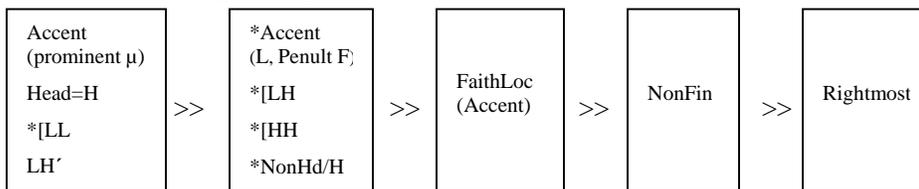
(3) Pitch Pattern in TJ

Input: consensus	Head=H'	*[LL]	*[HH]	LH'	*[LH]	*NonHd/H
a. (k)onse'nsasu LHHLLL				*	*	*
b. (k)onse'nsasu LLHLLL		*!				
c. (k)onse'nsasu HHHLLL			*!	*		**

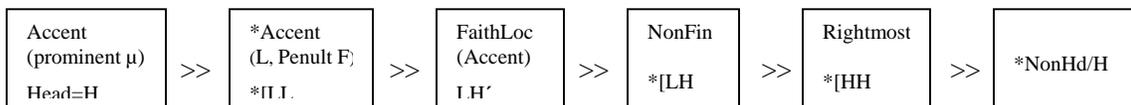
(4) Pitch Pattern in KJ

Input: consensus	Head=H	*[LL]	LH'	*[LH]	*[HH]	*NonHd/H
a. (k)onse'nsasu LHHLLL			*	*!		*
b. (k)onse'nsasu LLHLLL		*!				
c. (k)onse'nsasu HHHLLL			*		*	**

(5) The Constraint Ranking for English Loanwords in TJ



(6) The Constraint Ranking for English Loanwords in KJ



References

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