

The Paradox between Phonological Variety and Optionality

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The primary aim of this study is to demonstrate that phonological optionality (free phonological alternation) is caused by ambiguous specification in underlying representations. I prove this claim by pointing out the paradox between intra-language phonological variety in Japanese and the phonological optionality of loanwords within a constraint-based analysis.

It is widely argued that a language's lexicon may have a stratified structure, and such a structure can be a source of intra-language phonological variety. Japanese has such lexical stratification; the major portion of its lexicon consists of the Yamato (Native) class, the Sino-Japanese class, and the Loanword class, and among these, the Loanword class shows the broadest variety of phonological structures (Ito & Mester 1995, 1999, etc.). Some marked phonological structures are only allowed in the Loanword class, not the other two. Within the framework of Optimality Theory (Prince & Smolensky 1993), such intra-language phonological variety is explained by the relativization of constraints along with the lexical stratification, and the Loanword class—which may contain the marked phonological structures—is subject to the strongest structure preserving force through constraint interaction.

Meanwhile, statistic data from the *Corpus of Spontaneous Japanese* (NINJAL 2008) shows that the Loanword class most often shows phonological optionality among the three; many loanwords show phonological alternation, which yields two or more phonologically different forms without any semantic difference, as shown in (1). Such optional alternations are impossible in the other two classes. In addition, the optionality in loanwords can be bidirectional; some such optional alternations occur independently from phonological markedness, as shown in the voicing variation in (1a). If one wants to handle this phonological optionality within the constraint-based analysis, some phonological structures must be preserved in the Yamato and Sino-Japanese classes, but not in the Loanword class. However, this view yields a critical contradiction with the analysis of the above intra-language phonological variation, which requires that the Loanword class has the strongest structure-preserving force.

I account for this paradoxical situation by claiming that phonological optionality is caused by ambiguity in the underlying representations. Examples in (2) illustrate how ambiguous specifications correctly result in optionality in loanwords. In the Yamato and Sino-Japanese classes, such optional realization is suppressed by the constraint interaction that excludes the marked phonological structure. I believe that this view also correctly predicts the phonological nature of the peripheral lexical class in many languages, which shows both phonological variety and optionality.

Data

- (1) a. voicing: [bagudaddo~bakudaddo] 'Baghdad,' [abokado~abogado] 'avocado'
b. gemination: [rate~ratte] 'latte,' [matorikusu~matorikkusu] 'matrix'
c. vowel length: [deeta~deetaa] 'data,' [kategori~kategorii] 'category'
- (2) a. voicing: /ba{k~g}udaddo/ → [bakudaddo~bagudaddo] 'Baghdad'
b. gemination: /ra{t~tt}e/ → [rate~ratte] 'latte'
c. vowel length: /deet{a~aa}/ → [deeta~deetaa] 'data'

References

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