**Denasalization of Moraic Nasals in Sino-Japanese**

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This study argues for the psychological reality of morphological structures in Sino-Japanese (SJ) bimorphemic words (Tateishi 1990, Ito and Mester 1996, Kurisu 2000, etc.), on the basis of analyzing optional denasalization in moraic nasals. It is reported that a Japanese moraic nasal (conventionally described using “N” in the phonological study of Japanese) is phonetically realized as a nasalized semivowel in an intervocalic position (Vance 2008:97). Furthermore, the nasality of such a segment is often denasalized and pronounced as the latter half of a long vowel in some SJ bimorphemic words. For example, *ten-in* [teN.iN] (“clerk”) is often pronounced as [tee.iN], which is phonologically identical to *tee-in* (“capacity”), a word that does not originally contain a moraic nasal in the first morpheme.

A statistical survey of the *Corpus of Spontaneous Japanese* (CSJ, National Institute for Japanese Language 2008) shows that denasalization in SJ words is allowed only in limited phonological contexts. The phonology of SJ allows 575 phonologically distinct words with a CVN.CVN structure (Tateishi 1990). In the CSJ, 50 phonologically distinct words with this CV structure are found in 2264 tokens, and denasalization is observed in 15 words in 683 tokens. The great majority of denasalization is found in words with a CeN.iN structure, such as *gen-in* (“cause”) and *zen-in* (“everyone”). On the other hand, in words with a CeN.i or CeN.iCV structure, denasalization is not observed. This fact suggests that denasalization in SJ words must result in a quantitative change but not a complete deletion of nasality.

Another possible trigger of denasalization is the identity between two vowels. Denasalization occurs in several words with a CiN.iN or CeN.eN structure in the CSJ, such as *jin-in* (“personnel”) and *den-en* (“rural area”). However, the probability of denasalization in CeN.iN words is much higher than that in either of the other two structures, and the difference among them is statistically significant ($\chi^2 = 1.48899E-68, df = 2, p < 0.01$). This fact is compelling since there seems to be no motivation to block this alternation, at least in a CeN.eN structure. Words with a Cee.eN structure is not prohibited in SJ phonology—*tee.en* (“garden”) being an example of such an occurrence.

This study claims that the difference between CeN.iN and the other two structures is caused by the necessity to clarify the morphological boundary. If denasalization occurs in a CVN.VN word in which two vowels are identical, the morphological boundary becomes obscure; therefore, the phonological alternation is blocked to avoid such a situation. In other words, the moraic nasal serves to mark the morphological boundary. In a word with a CeN.iN structure, the morphological boundary is not obscure, even in its denasalized form.

If this view is accurate, the morphological information of SJ words, most of which are highly lexicalized, is psychologically real and still active for phonological grammar. This finding can provide an important key to understand the whole mechanism of SJ morphophonology.
References