

## Light Verb Voicing and Japanese Phonological Lexicon

Building upon earlier work on lexical stratification in Japanese (Itô & Mester 1995 et seq.), this paper explores where morphological complexes consisting of a Sino-Japanese item and Yamato (native) light verb (e.g., [kai-suru] 'meet') are positioned in Japanese lexical strata. As illustrated by [kai-suru], those morphological complexes function as verbs, indicating that the light verb serves as the morphological head. Studying voicing phonology, I argue that some morphological complexes behave as native items phonologically whereas others behave as Sino-Japanese items.

Examples are given in (1). The crucial observation is that the initial consonant of the light verb (/suru/) may or may not undergo voicing whether the Sino-Japanese stem ends in a nasal or not.

- (1) a. meN-zuru 'exempt'      b. kai-suru 'meet'  
      c. meN-suru 'face'        d. mee-zuru 'command'

In order to incorporate these examples in the core-periphery model (Itô & Mester 1995, 1999), the key constraint is \*NC<sub>0</sub> which penalizes a sequence of a nasal and a voiceless obstruent (Pater 1999). Postnasal voicing occurs in Yamato verbs (/siN-ta/ [siN-da] 'died'). In Sino-Japanese, NC<sub>0</sub> clusters surface faithfully (/siN-tai/ [siN-tai] 'body'). Then, the ranking in (2) follows.

- (2) Ident-[voi]<sub>Sino</sub> » \*NC<sub>0</sub> » Ident-[voi]<sub>Yamato</sub>

It is clear that (1a) and (1c) exhibit parallel behavior with Yamato and Sino items, respectively. \*NC<sub>0</sub> is irrelevant to (1b) and (1d), so they cannot be empirically grouped with Yamato or Sino items. Assuming the initial state of M » F (Smolensky 1996), maximally unmarked structure is preferred. Without contradicting evidence, (1b) and (1d) are classified in the Yamato stratum.

This discussion is important in two respects: (i) phono-lexical organization of Japanese does not necessarily accord with morphological headedness, and (ii) Japanese phonological lexicon is independent of etymology as the forms in (1) comprise morphemes belonging to different strata.

Two interesting puzzles exist. First, examples as in (3) do not have counterparts with voicing of /s/ in the light verb. Voicing fails to apply even when the light verb is immediately preceded by a nasal, as in [kookaN-suru]. Crucially, a bound Sino-Japanese stem precedes the light verb in (1). But in (3), the light verb follows a Sino-Japanese noun which can stand as a prosodic word.

- (3) hookoku-suru 'report'    \*hookoku-zuru    kookaN-suru 'exchange'    \*kookaN-zuru

I propose that the morphological complexes in (1) are lexical but those in (3) are postlexical. Evidence comes from adverbial reduplication. Regular verbs undergo total reduplication (/tabe-RED/ [tabe-tabe] 'eat'). But monomoraic bases undergo vowel lengthening to satisfy bimoraic minimality (/si-RED/ [sii-sii] 'do'). In (1), a vowel is not augmented ([meNzi-meNzi]). On the other hand, in (3), only the light verb is copied with vowel lengthening ([hookoku-sii-sii]). This contrast is explained by supposing that the morphological complexes in (1) are constructed at the lexical level while a Sino-Japanese noun and the light verb in (3) are postlexically amalgamated through syntactic incorporation after reduplication applies (Kageyama 1976-7; Kurisu 2001).

Second, examples as in (4) consistently display voicing of the light verb. Counterparts without voicing do not exist, the opposite situation of (3). In (4), elements before /suru/ are affiliated with Yamato-Japanese, unlike in (1) and (3). Furthermore, they are bound forms. These observations suggest that the forms in (4) are monomorphemic Yamato items. This elucidates why the initial consonant of the light verb is always voiced since Yamato items must respect \*NC<sub>0</sub> (see (2)).

- (4) omoNzuru 'honor'    \*omoNsuru    utoNzuru 'neglect'    \*utoNsuru

In summary, the phonological contrast found in (1), (3), and (4) is successfully accounted for by making lexical/postlexical and mono/bi-morphemic distinctions. Examples in (3) are parallel to Sino items, those in (4) behave as Yamato items, and finally, those in (1) reveal both behavior.