Rendaku Lovers, Rendaku Haters and the Logistic Curve

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Rendaku (or sequential voicing) is a morphophonemic alternation common in modern Japanese. A morpheme beginning with a voiceless obstruent may appear with a voiced obstruent when the non-initial element in a compound: e.g. *kami* 'hair' but *mae+gami* 'fringe' (lit. 'front+hair'). However, rendaku is fundamentally irregular: it does not always occur and its absence cannot always be explained.

Over the years, a number of different factors have been put forward seeking to explain this irregularity. The most robust of these is Motoori-Lyman's Law (Motoori 1790-1822, Lyman 1894), a constraint blocking rendaku in a morpheme containing a medial voiced obstruent: e.g., *kubi* 'neck' never alternates with **gubi* in compounds such as *aši+kubi* 'ankle' (lit. 'leg+neck'). Other important factors contributing to rendaku irregularity include: the Right Branch Condition (Otsu 1980, Itô & Mester 1986), where rendaku is restricted to elements on the right branch of a constituent structure; coordinate or dvandva compounds (Okumura 1955), double-headed compounds where rendaku is blocked; and restrictions based on lexical stratum, notably the foreign stratum (*gairaigo*) where rendaku is extensively blocked (Irwin 2011: 150-153), and the Sino-Japanese stratum (*kango*, *jiongo*) where it is severely dampened (Irwin 2005).

Even when none of these factors applies, rendaku often still fails to be triggered. While a few morphemes appear rendaku immune (*šio* 'tide', *kasu* 'dregs, lees'), the vast majority of morphemes either exhibit a strong predilection towards rendaku (*tokoro* 'place', *suši* 'sushi'), or a strong aversion towards it (*take* 'mushroom', *cuči* 'soil, earth'). In other words, although rendaku is sometimes triggered and sometimes not, a clear tendency towards or away from rendaku is apparent. Into which camp a native Japanese morpheme falls may be described by use of the terms 'rendaku lover' and 'rendaku hater'. Rosen (2001: 40) defined rendaku lovers as exhibiting rendaku in 66% or more of compounds and rendaku haters as exhibiting rendaku in fewer than 33%. He stated further that lovers are considerably more frequent than haters. Moreover, he claimed there are only two nouns, *kawa* 'skin, leather' and *hara* 'field', which appear to be neither haters nor lovers, since the proportion of compounds in which they voice lies in the middle tertile. This 'apparent tendency for a noun to either strongly prefer to voice, or else to resist voicing, with almost no nouns occupying a middle ground between the two tendencies' (ibid.), if schematized, represents the logistic curve (S-curve) familiar from diffusionist hypotheses (e.g. Wolfram and Schilling-Estes 2003).

In this presentation I will revisit Rosen's (2001) claims that (a) the vast majority of native Japanese nouns are either rendaku lovers or rendaku haters, and (b) that their schematization results in a logistic curve. While Rosen's (2001) database was small, here I utilize the Rendaku Database (RD), an important component of the Rendaku in the Japanese Lexicon Project, funded by the National Institute for Japanese Language and Linguistics in Tokyo. The RD contains all compounds listed in a range of dictionaries in which a sequentially voiceable morpheme appears as the non-final element: in total, approximately 35,000 entries. All entries are tagged for +/- rendaku, vocabulary stratum of initial and non-initial morpheme(s), accent pattern of initial and non-initial morpheme(s), mora count of initial and non-initial morpheme(s), reduplication and dvandva. I will show that while Rosen's model

indeed holds up to the more rigid empirical scrutiny imposed by the RD, rendaku haters are too few to support a logistic curve model. Further, even if the notion of polysemy is employed in order to split certain common morphemes, those which fall within the middle tertile are greater in number than proposed by Rosen.

References

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