

The syllabification of syllabic nasals

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Syllabic nasals, which are found in languages such as Pali, Japanese and many Bantu and Ogoni languages, exhibit both consonantal and vocalic characteristics in terms of their tonal/metrical properties and static distribution (Ferguson 1963, Hyman 1985, Nasukawa 2004). In the literature (Hyman 1985, Bickmore 2007 and others), in order to incorporate the dual character of syllabic nasals, these segments are typically syllabified in a single position (nucleus or mora) under which a nasal consonant is specified.

There are however at least two problems if syllabic nasals are syllabified in a single vocalic position (nucleus or mora). First, morphological concatenation forces resyllabification (e.g. in Japanese: *sin* ‘to die’ + *a.na.i* NEGATIVE > *si.na.na.i* ‘(somebody) does not die’; *si.N* ‘new’ + *ka* ‘turning’ > *si.ŋ.ka* ‘evolution’), which necessarily overrides particular structural conditions that hold at lexical representation, but which is undesirable under a monostratal approach to representations (Harris 2004). In terms of faithfulness to lexical forms, this kind of the structure-changing operation entails a degree of arbitrariness and has the effect of weakening the restrictiveness of the theoretical model. Second, the appearance of a syllabic nasal in a nucleus or mora makes an overly strong prediction: if nasality is allowed to occupy a nucleus or mora, we may well assume that some other nasalized melody is also permitted to function contrastively in the position. However, there is no empirical evidence to support this prediction for the languages mentioned above. (In nasal harmony languages, nasalised vowels are not considered to be lexically contrastive.)

In order to avoid these problems, the present paper proposes a different type of representation for the syllabic nasal: its syllable structure consists not of a single syllabic position such as coda, but rather, of a sequence comprising an onset filled by a nasal and a following melodically empty nucleus. In the onset position, the consonantal characteristics of the syllabic nasal are specified, while its vocalic characteristics are due to the presence of the melodically empty nucleus (which must be phonetically interpreted in CV languages). What is crucial to the interpretation of empty nuclei is not really the characteristic acoustic resonance of ‘vowel’, but rather, its contribution to metrical structure. As long as one ‘beat’ can be detected, the interpretation of an empty nucleus does not have to be a vowel sound. Employing this structure, an analysis involves no syllabic reorganization in the course of morphological concatenation (e.g. Japanese: *si.n∅* ‘to die’ + *a.na.i* NEGATIVE > *si.na.na.i* ‘(somebody) does not die’; *si.N* ‘new’ + *ka* ‘turning’ > *si.ŋ.ka* ‘evolution’). This offers a distinct advantage in terms of theoretical restrictiveness. This argument also provides an insight into the syllabification of an NC sequence, which has been the source of much controversy in the literature (Kula 2002, Nasukawa 2005).

References

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