An Allomorphy Based Account of Vowel Harmony in Nata and Ikoma

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An initial examination of vowel harmony in Nata, an endangered Lacustrine Bantu language of Tanzania [E45], seems to indicate a fairly straightforward pattern of agreement of tongue root values in sequences of adjacent mid vowels. Whereas high vowels ([i, u]) are systematically advanced and the low vowel ([a]) is systematically retracted, the mid vowels split into advanced ([e, o]) and retracted ([ε, ø]) harmonic sets. Square brackets below delimit morphological stems.

1 Harmony in mid vowels

Retracted
a. a-ma-[βáko] ‘arms’ (C6)
b. e-γi-[sεςrɛ] ‘hide’ (C8)

Advanced
c. a-má-[β̌endo] ‘backyards’ (C6)
d. e-βé-[tore] ‘cucumbers’ (C8)

A problem arises, however, when we look at the behaviour of harmony in prefixes. Consider the Class 3 and Class 7 prefixes in (2). In these examples, the prefixes, which we will argue to be underlyingly mid (just as they are on the surface), are well-behaved as far as harmony is concerned: The prefixes are retracted when the initial root vowel is retracted and advanced when the initial root vowel is advanced.

2 Harmony in prefixes 1

Retracted
a. ɔ-ɔmɔ-[tɔmɛŋ-ɔ] ‘string’ (C3)
b. ɛ-ɛkɛ-[mɛɛr-ɔ] ‘throat’ (C7)

Advanced
c. e-me-[kɛrɔ] ‘wild fruits’ (C3)
d. o-mó-[su̯kɔ] ‘pocket’ (C7)

Problematic, however, are forms such as those in (3). Whereas roots with initial retracted vowels occur with retracted mid vowels in (2), roots with initial retracted vowels cause mid vowels to raise to high – rather than retract – in examples such as (3).

3 Harmony in prefixes 2

Retracted
a. o-mu-[kári] ‘woman’ (C1)
b. o-βut-[sɔ̯ɔlu̯] ‘greediness’ (C14)

In earlier work, Gambarage (2013) argued that to account for the distinction between cases like (2a,b) – where mid vowels retract – and cases like (3a,b) – where mid vowels raise to high, it is necessary to invoke two distinct co-phonologies (Orgun 1996; Inkelas 1998). We point out problems with such an account, however, and argue instead that the two patterns observed in Nata are readily accounted for within the allomorphy account of Archangeli and Pulleyblank (2012) without the need to invoke multiple co-phonologies. The integration of general phonotactics governing vowel harmony with allomorphy appropriate for particular roots derives the two patterns in a unified fashion.

We will also consider in this paper patterns seen in Ikoma (Higgins 2011), a dialect/language very closely related to Nata. Although Nata exhibits the patterns in both (2) and (3), Ikoma only exhibits the pattern in (3). This and a number of other differences show the harmony systems of Nata and Ikoma to be intriguingly different.
References


