Positional Prominence Constraints and Nasality: An Edoid Example

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Nasality remains a frequent and lively topic of cross-linguistic and historical investigation, especially for Africa's Sudanic Belt (Hyman et al. 2019). For vowels, a distinctive oral/nasal contrast is prevalent, whereas a like contrast for oral/nasal consonants is less definitive. A canonical treatment of the lack of contrastive nasal consonants appears in studies of the Igboid language Ikwere (Clements and Osu 2005, Clements and Rialland 2008). Ikwere exhibits a distinctive oral/nasal contrast for vowels. As for consonants, they divide into two sets: obstruents that accept oral or nasal vowels and non-obstruents that are either oral sounds that occur before oral vowels or morphophonemically related nasal sounds that appear before nasal vowels. Across the Niger River to the west such canonical conditions are less apparent.

For this paper we examine the potential of consonants to combine with nasal vowels in the Edoid language Emai. Emai manifests twelve distinctive vowels: seven oral and five nasal, there being no [ḛ]or [o̰] (nasality indicated by subscript tilde). Emai also displays lexical and grammatical tone in a relatively rigid SVO syntax with minimal segmental morphology. Compared to Ikwere, Emai obstruents occur unevenly with nasal vowels. Its non-obstruents split into two sets: nasal and non-nasal. To support our claims about consonant behavior, we examine positions of prominence within the prosodic verb stems CV̰ and CV̰V̰, as in other studies of Niger-Congo (Lovegren 2012, Lionnet 2017).

Relative to prosodic stem CV̰ with a nasal vowel, Emai obstruents exhibit non-uniform behavior. Overall, it is primarily voiced obstruents that do not combine with a following nasal vowel. Such is the case for the voiced velars, fricative [ɣ] and labiovelar [g͡b], as well as the voiced alveolar fricative [z]. Among voiceless obstruents, only bilabial stop [p] does not combine with nasal vowels.

Relative to the same prosodic stem, non-obstruent consonants show an asymmetrical pattern. Non-obstruents that are nasal ([m], [n], [ɲ]) regularly combine with a nasal vowel. Some non-obstruents lacking nasality fail to combine with a nasal vowel, as happens with the voiced approximants labiodental [ʋ], labiovelar [w], and alveolar lateral [l]. Remaining non-obstruents combine with a nasal vowel, as shown by the voiced approximants alveolar [ɹ] in *rṵ* 'to roost' and palatal [j] in *já̰* '3 PL' logophoric pronoun.

In prosodic stem CV̰V̰, the set of consonants not taking a following nasal vowel sequence expands slightly. Among obstruents, not only do [p], [z], [ɣ] not occur with nasal sequence V̰V̰, but also so do voiced bilabial stop [b], voiced palato-alveolar affricate [ʤ], and voiceless palato-alveolar fricative [ʃ]. It is only voiced labiovelar [g͡b] that shifts, now allowing nasal V̰V̰, as in *g͡ba̰a̰* 'to melt.' As for non-obstruents, voiced approximants labiodental [ʋ], labiovelar [w], and alveolar lateral [l] continue to reject a nasal V̰V̰ sequence. But so does the voiced palatal approximant [j], which accepted nasal V̰.

We conclude by noting a tendency for some voiced consonants to disallow a following nasal vowel. Five of six sounds that reject nasals in both V̰ and V̰V̰ stems are voiced, while 4 of five that reject a nasal in either V̰ or V̰V̰ stems are voiced. We assume the tension between voicing and nasality concerns relations internal to syllable format, variously characterized by the sonority sequencing principle (Parker 2002, 2011), perceived resonance (Clements 2009), or modulated carrier signal (Harris and Hyman 2022). This leaves room to examine the restriction on voiceless [p], which may be areal (Clements and Rialland 2008). The shift of voiced [g͡b] toward accepting nasal vowels in CV̰V̰ seems to be another matter.

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