The Evolution of Word-Initial Nasalised Vowels in Igasi

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Abstract

This article reports that Igasi, a language spoken in the Akoko area of Ondo state is in the process of change whereby word-initial nasalised vowels are being developed. Many nouns in the language have the VNCV structure on the surface but the VN component of this structure is now being simplified in one of two ways: (1) by the elision of the prefix vowel, which results in the NCV structure, and (2) by the deletion of the nasal. The option involving the deletion of the nasal is particular to words having the high vowels /i/ or /u/ in prefix position, and the deletion usually occurs after the prefix vowels have been nasalised. Thus, following the deletion, what is left is a nasalised / ĩ/ or a nasalised /ũ/ in word initial position, a fact that is considered extremely marked in comparison to most of the other related West Benue-Congo languages around it. This pattern is very common in casual speech among Igasi speakers; although they consciously suppress it in careful speech, it still shows up frequently. It is then argued that the language is presently undergoing a process of change, which may eventually become phonologised.

Introduction

Several studies exist on nasals and nasalisation in African languages (Hyman 1972; Williamson 1973; Elugbe 1983; Hombert 1986; Clements & Rialland 2006; Salffner 2009 to mention only a few), but there is still much to be known about the phenomenon. For instance, in Rolle's (2013) survey of 168 languages and language clusters, independent evidence was presented in support of both areal spread and innovation as the sources of nasalised vowels in African language, with no generally agreed source for the sounds. The Edoid group is a representative case; Rolle posits that nasal vowels in Edoid languages are products of areal spread since those geographically close to Yoruba (e.g. Ehueun and Edo-Bini) have nasal vowels but lack /ẽ/ and /õ/, while those geographically close to Ijo languages (Okpe, Eruwa, and Urhobo) "have a full set of nasal counterparts including /ẽ/ and /õ/" making their inventories similar to those Ijo languages (Rolle 2013: 243), whereas the others that are farther from these influencing languages (Eastern Edoid languages such as Ghotuo, Etsako, and Uneme) lack contrastive nasal vowels. Rolle also shows that "West Nigerian languages innovated nasalization..." More categorically is the case of the widespread absence of /ẽ/ and /õ/ in West-Africa which is itself a phonetically natural gap and

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serves as proof that nasalised vowels may be clear products of innovation (Rolle 2013:237).

The nature of nasalised vowels in Igasi presents some insight into the plausibility of languages developing the phenomenon. The fact that nasalised vowels in Igasi can also occur as prefixes of nouns is another issue worth studying. This study is therefore a contribution to scholarship on the nature, distribution and source of nasalised vowels in African languages. Further, Igasi is an understudied language, and so this work is a contribution to its documentation.

The Igasi People and Language

Igasi is spoken by about 45, 000 natives in the Akoko North-western part of Ondo state, Nigeria (Talabi, 2016). It is one of the 10 mutually exclusive speech forms spoken in that region. The other speech forms are Arigidi, Erúsú, Oyín, Ùrò, Ọjọ, Àjè, Àfá, Ùdò, and Ògè (Olumiyiwa & Oshodi 2012). Igasi village, which is the Igasi-speaking area, is surrounded by Yoruba and Edoid language communities. Specifically, Yoruba is the language of the immediate community to the Igasi people, and it has also been observed that many of the young children in Igasi land are proficient only in Yoruba (Bhadmus, 2016). This underscores the state of endangerment of Igasi language.

The Vowel System of Igasi

Igasi has seven oral and five nasalised vowel phonemes (Bhadmus 2016). A point to note from Table 1 is that it is the close-mid vowels that lack nasalised counterparts as is common of languages in Western Nigeria (Rolle 2013). Also, the fact that Igasi has both oral and nasalised vowel phonemes is predicated on the contrast between members of both groups in the environment of oral consonants where the nasalised ones are not contextually predictable (1a-e).

Table 1: Phonemic vowel chart of Igasi

	Front	Central	Back
Close	ɪ		u
	ĩ		ũ
Close-mid	e		o
Open-mid	ɛ		ɔ
	ɛ̃		ɔ̃
Open		a	
		ã	

(1) Non-predictable nasalised vowels in Igasi

a. ɔ̀wɔ̃ "light"
b. ãwãwã "armpit"

c. ōtītī "darkness"
d. ōdòrū "mouth"
e. wɛ̄ɾ̃ī "now"

The Structure of Igasi Nouns

The most common structure among the nouns in Igasi is the disyllabic V-CV, which is akin to those attested in the other languages spoken in South-western Nigeria (2a-b). The language also has multisyllabic structures, having a V in noun prefix position followed by multiple CV sequences (3-4).

(2) V-CV nouns
a. ūvɔ̄ "hand"
b. ídʒù "eye

(3) V-CV-CV nouns
a. ōdòrū "mouth"
b. īkpùkpū "sand"

(4) V-CV-CV-CV and longer words
a. īgírígɔ̀ "knee"
b. ìkpákpávɔ̄ "arm"

Igasi also has nouns that lack noun prefixes (5-6). These are however rare, and appear mostly in nativised borrowed words. More specifically, examples (6a-b; 7a-b) show that nasal consonants can appear independently as syllables within Igasi nouns. The independence of the nasal consonants is not in doubt in these cases since they often bear tones different from those on adjacent vowels.

(5) CV-CV: kpɛ̄rɛ̀ "trick"
(6) CV-N̩-CV
a. kpáṅsɔ̄ "blemish"
b. kpáŋ̃kɛ̄ "(to be) slender"
(7) a. V-CV-CV-CV-N̩-CV: ògòlòmm̩̀ìtʃí "pawpaw"
b. V-CV-N̩-CV: èrɛ̄ǹtɛ̄ "afternoon"

Finally, some nouns have the Vowel-Nasal VN cluster in the prefix position. These are exemplified in examples (8a-g). One fact that becomes apparent from examples (8a-g) is that all the seven oral vowels of Igasi can co-occur with following nasals in this position.

(8) VN-CV nouns
a. ēñʃī "soil/earth"
b. ɔ̄ñgɔ̀ "stick"
c. ɛ̄ñtɛ̄ "guinea fowl"
d. āŋ̃gà "crab"

e. ònd̀ù "load"
f. ūñdɔ̄ "work"
g. ìǹtɔ̀ "cherry"

A point to note from the outlined structures is that, contrary to the view strongly held by Hyman (1972) and Williamson (1973:120), VN is not limited to a position before stops; it also freely occurs before fricatives in Igasi (8a; 9a-c).

(9) VN clusters before fricatives
a. ɛ̄ŋ̃fɛ̄ "joke"
b. úńsɔ̄ "good"
c. ùǹsɛ̄ "music/song"

The question of whether the nasal in a word-initial VN sequence is syllabic or not needs to be attended to. It is taken as non-syllabic because there is no evidence that it is capable of bearing a tone of its own. By this is meant that the nasal cannot bear a tone that is different from that of the preceding V; its tone is always the same with that on the V in every item available for this research. This suggests that it actually lacks tone, but being a sonorant, it assimilates the tonal feature of the adjacent V once they are co-articulated. This is different from the syllabic nasal in some other environments in the language. In *lɔ̄ǹsɔ̄* "drumming" for instance, we see the N̩ bearing a different tone from the preceding V (See also examples 6a-b; 7a). Also, whereas the N̩ in *lɔ̄ǹsɔ̄* "drumming" and examples (6a-b; 7a) is in a different syllable from the preceding V, that in (8a-g; 9a-c) is in the same syllable with the preceding V and as such it is the vowel which is the most sonorous element as well as peak of the syllable that takes the tone.

Nasalisation in Igasi

Nasalised vowels are generally of two types: those that are predictable from their phonetic environments and those that are not (Rolle 2013:227). While (1a-e) contain nasalised vowels that are not predictable from their phonetic environments, we show in (10a-e) that with the exemption of the close-mid vowels /e/ and /o/, vowels in Igasi can also be contextually nasalised.

(10) Phonetic nasalisation of vowels after nasal consonants
a. ìnɔ̄gīdʒɛ̀ "nickname"
b. īnī "faeces"
c. īmm̩̀ "palm wine"
d. ɲādʒɛ̀ "dubious"
e. ɲɛ̄ "sweet"

More on Nouns with Initial VN Sequence

A pattern of alternation is observable among the nouns having initial VN sequence, especially where vowels /i/ and /u/ are involved. Available data show alternation between the more basic VN, a lone Ṇ which is syllabic, and a nasalised vowel Ṽ (11a-g).

(11) VN~Ṇ~Ṽ alternation in Igasi

a. ĩŋgā ~ ŋ̃gā ~ ĩgā "basket"
b. íŋ́gà ~ ŋ́gà ~ ĩgà "nail"
c. ìǹtɔ̀ ~ ṇ̀tɔ̀ ~ ĩtɔ̀ "cherry"
d. ùǹsɛ̃ ~ ṇ̀sɛ̃ ~ ũsɛ̃ "song"
e. úńtí ~ ṇ́tí ~ ũtí "king"
f. ūŋ̃mwānhɛ̀ ~ŋ̃mwānhɛ̀ ~ ũwānhɛ̀ "chick"

Going by the high number of nouns having the VN sequence as prefixes in Igasi, it can be inferred that the language indeed has this complex prefix type. It can be thought further that this sequence is being simplified when a high vowel is involved. It is then the simplified form that appears as either Ṇ or Ṽ. Justifying the simplification of such sound sequences is not difficult. Sound change is naturally driven by the quest for ease of articulation, which, in this case, is an obvious motivation. A second justification can be drawn from the structures found in the neighbouring languages, especially Yoruba. Except in extremely rare examples like *ī̀ŋ̀kā̃ ~ ŋ̀kā̃ ~ ĩkā̃* "something," one will not find this VN sequence in Yoruba nouns. Since Yoruba is the language of the immediate community (LIC) and in fact the first language of many Igasi speakers, one can safely deduce that the simplification is partly a result of their exposure to Yoruba having simpler structures.

In that case, it can be said that as Igasi simplifies this complex sequence in the noun prefix position, it is developing nasalised vowels in its place. But the implication of this is that Igasi is developing word-initial nasalised vowels, an idea that is wildly divergent from what is obtained in the literature. The bulk of the discussion on nasalised vowels has revolved around the word-final position being the environment for the process, although reference is frequently made to the syllable-final position being the specific environment (Hyman 1972; Atoyebi 2009). Specifically, it appears to be the general assumption that nasalised vowels cannot occur in word-initial position (Atoyebi, 2009:132). This might have been informed by the fact that syllable-initial consonant-clusters are marked (Hyman 1972:194)[2]. Consequently, since nasalised vowels must necessarily derive from NV

[2]We must point out that exemptions to this exist. Hombert (1986), for instance, reports that nasalized vowels are found in noun prefix position in Ibali, a Bantu language.

clusters (in whatever order), they are not expected in the syllable-initial position.

How then is this VN simplification accomplished? To start with, there exist at least three options in this resolution (Fig. 1)

Fig. 1: VN → (a) V (via N-deletion)
VN → (b) Ṇ (via V-deletion and [+Syl] shift)
VN → (c) Ṽ (via regressive nasal assimilation and N-deletion)

Apparently, Igasi does not choose option (a), although it may appear to be the easiest to accomplish. There are instances of option (b) whereby the V is elided and the N becomes the syllable peak. Option (c) involving regressive nasal assimilation followed by nasal deletion is also attested and is indeed the most common in normal, unguarded speech. This suggests that, irrespective of complexity, option (c) is the preferred direction for VN cluster resolution in Igasi.

It should also be noted that in many instances, it is difficult to tell whether what is perceived as Ṇ is not even a nasalised vowel. In trying to tell between these, one needs to observe whether the front-back dichotomy between the high vowels is perceptually reflected in what is perceived to be a syllabic nasal. The hypothesis here is that if the front-back dichotomy is indicated, then we are dealing with nasalised vowels, even if it is not clearly perceived so. It could also be checked whether there is indication of lip rounding where the vowel [u] is involved. Again, the presence of such an indication of lip rounding would be proof that the sound is a nasalised vowel, not a nasal consonant. A preliminary experiment testing these two hypotheses was conducted and the results show that both front-back dichotomy and indications of lip-rounding can be observed in the supposed instances of syllabic nasals. This suggests that even where it appears that a syllabic nasal is perceived, the sound is itself a form of nasalised vowel. We hope to carry out a more systematic experiment to be able to make a categorical statement on this.

Hombert (1986:360) claims that the commonest diachronic source of nasalised vowels is regressive assimilation whereby an oral vowel gets nasalised by a following nasal consonant before the nasal consonant gets deleted. This is consistent with the facts of Igasi, except that it is restricted to only the high vowels, and it occurs in word-initial position.

A possible support for VN as source of nasalised vowels is the fact that most languages having phonetic nasalisation of vowels after nasal consonants still keep the nasal consonants synchronically. It is often when a vowel is regressively nasalised by a following nasal consonant that the nasal consonant gets deleted, yielding what is synchronically regarded as

contrastive nasalised vowels. This, at least, explains the facts of the evolving nasalised vowels in Igasi.

Alternations

To reiterate, the VN sequence is differently realised as VN, N̩, and Ṽ forms by the speakers of Igasi. This means that a single speaker can say the same word three times and the three different forms will be attested; this can also happen across speakers such that where speaker A has the VN form, speaker B has the N̩, and speaker C has the Ṽ form for the same word in the same context. More specifically, the N̩ or Ṽ are more frequently used in normal speech, but speakers switch to the VN form once they are required to repeat themselves, say, for the purpose of clarity. Salffner (2013:321) also makes a similar observation about nasalisation in Ikaan. In two repetitions of [àjĩ + à:dʒ] "my teeth" the speaker first gives [àjĩm à:dʒ], and [ə̀jə̃:dʒ]. The singular form was rendered [ò jĩ ɔ:dʒ] with no [m] insertion and no hiatus resolution as seen in the first two forms. Salffner then hints that "it is possible that the three patterns indicate a change in the language. Maybe a word such as "tooth"... is in the process of losing the final /m/." While Salffner refrained from making any categorical statement on the matter, we note that this observed change mirrors our observation for Igasi.

Further, the Igasi data on alternation presented so far largely form a replica of Hombert's (1986:364) data, and if Hombert's submission is to be followed, this alternation between the form with the nasal consonants and those without it in Igasi is clear evidence that the nasalisation process is still in progress.

A look at the nature of this sequence in Uro, another speech form of North-western Akoko that is mutually intelligible with Igasi confirms that the simplification process is not limited to only Igasi (Table 2). The Uro data in Table 2 are taken from Adewusi (2008). Although Adewusi transcribes the nasals as syllabic in many VN instances, this is doubtful because throughout her work, the nasals never bore tones different from the preceding vowels. That aside, her data also presents a blend of the three forms attested in Igasi: VN, N̩, and Ṽ. It is informative that out of 21 items involving high vowels in the data, seven contain initial nasalised vowels. Since there is no field note on possible alternations, one can only take the present facts of Uro as support for the observed change in Igasi. Another work presenting comparative data on Igasi and eight other related speech forms of North-west Akoko is Olaogun (2016). But Olaogun's data on the languages are written orthographically, hence one is not able to tell whether 'in' and 'un' sequences are either nasalised vowels or vowel-nasal sequences. The work however

reveals very plainly that the different speech forms are actively simplifying the sequence using different methods[3].

Table 2: Comparative data on alternations

s/n	Gloss	Igasi	Uro
1	Basket	ĩgā	íŋ́gá
2	Calabash	ĩŋkū	ĩŋ́kú
3	Charcoal	íŋ́sì	íŋ́sĩ
4	Child	ūwà	ŋ̀mwā
5	Cock	ūwāɛ̃hɛ̃	ɔ́kʷɛ̃hɛ̀
6	Cold	ǹtū	ǹtù
7	Day	ĩŋgɛ̀	íŋ́gɛ̀
8	Five	ĩtɔ̀	ńtɔ̀
9	Hair	ńtĩrĩ	ĩsĩrĩ
10	Husband	ñwā	ūrɔ̄
11	Iron	ɛ̃rɛ̃	ūrɛ̃
12	King	ńtì	ūʃĩ
13	Knife	ūɸwɛ̃	ūɸwɛ̀
14	Leopard	ūkù	ūkù
15	Navel	ŋ̀mkpɔ̄	íŋ́mkpɔ̄
16	Neck	ūtʃɛ̃	ūtʃɛ̃
17	Nine	ĩgà	íńdà
18	Okra	ĩŋgù	ĩŋgū
19	Penis	ìǹdù	ìndù
20	River	ūsɛ̀	ǹsɛ̀
21	Song	ùǹsɛ̄/ǹsɛ̄	ńsɛ̃

Conclusion

This article has reported that the Igasi vowel system is currently undergoing a process of change by which word-initial nasalised vowels are being developed. This change in progress affects only the high vowels /i/ and /u/ when they combine with nasal consonants at the initial position. Discussion on the evolution of nasalised vowels in Kwa languages has centred on word-final position. The discovery of a language in which word-initial nasalised vowels are attested therefore adds to Salffner's (2013) view that "research on nasal vowels in particular is only just beginning."This work is therefore a contribution to the findings along this line and it is hoped that further research works will be conducted to track the progress of the change in Igasi as well as uncover other processes in hitherto under-investigated African languages.

[3]Interested readers can see chapter 1 of Olaogun (2016) for the said comparative data.

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The Syllable Structure of Ikwere

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Abstract

Sounds are combined in different ways in languages of the world to form different pronounceable units known as the syllable. While some of these pronounceable units are simple and clear, others are complex and ambiguous. Using a descriptive approach, the paper analyzes the syllable structure of Ikwere, an Igboid language of the West Benue-Congo family of the Niger-Congo phylum. Previous studies observe that Ikwere operates an open vowel system like most African languages particularly the Igboid related group, but the present work observes evidence of the CVC structure in the language and notes that it could be interpreted either as a CVN or CVC. It specifically states that the structures V, N, CV and CGV are the syllable types attested in Ikwere. Thus the paper observes that the language has both univalent (clear) and ambivalent (ambiguous) syllable structures and further provides interpretations to the actual phonemic status of the various ambiguous structures. It is expected that this paper will be relevant in stating generalizations about the distribution of allophonic features in the language.

Key words: Syllable structure, univalent syllable, ambivalent syllable, syllabic nasal, vowel sequences

1. Introduction

The Ikwere language is an Igboid language of the West Benue-Congo family of the Niger-Congo phylum (Williamson 1988, Williamson and Blench2000). It is related to Etchie, Ekpeye, Ogba spoken in Rivers state of Nigeria and Igbo spoken in Abia, Anambra, Ebonyi, Enugu, Imo, etc. states of Nigeria. Ikwere consists of twenty-four dialects spoken by the twenty-four communities located in four (Ikwerre, Emohua, ObioAkpor and part of Port Harcourt Local Governments Areas (LGAs)) out of the twenty-three LGAsof Rivers State, Nigeria. The twenty-four dialects whose names coincide with the names of the communities are Rumuekpne (Rmkp), Rundele (Rndl), Odeegnu (Odgn), Ẹmowha (Ẹmwh), Ọgbakiri (Ọgkr), Akpọ, Obio, Alụu, Igwuruta (Igwr), Ọmagwna (Ọmgw), Isiokpo (Iskp), Ibaa /Obeele (Ib/ob), Ipo, Ozuaha (Ozha), Ọmuanwa (Ọmnw), Ubima (Ubma), Akpnabu (Akpb), Egbedna (Egbd), Ọmadeeme (Ọmdm), Eleele (Elle), Omudiogna (Omdg), Ubimini (Ubmn), Omerelu (Omrl), and Apnani (Apni).

There are previous works on the syllable structure of Ikwere. Some of them are Worukwo (1983), Azunda (1987) and Alerechi (1987, 2007). In discussing the verbal system of the Ogbakiri dialect of Ikwere, Worukwo