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Verb Inflectional Morphology in Ikwere

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Roseline I. C. Alerechi · Ethelbert E. Kari (2018), Verb Inflectional Morphology in Ikwere. *Studies in Linguistics* 48, 79-113. Although some work has been done on Ikwere verb inflectional morphology, no comprehensive description of this aspect of the language exists. This paper aims at providing a fairly comprehensive description of the verb inflectional morphology of Ikwere, an Igboid language (Niger-Congo) spoken in southern Nigeria. It notes that the marking of inflectional categories of tense, aspect, mood and polarity in Ikwere is a combination of affixes, auxiliaries and tone. The paper identifies **-kata** and **-li** as markers of resultative and potential respectively. It also identifies the combination **-ká** and **-lâ** as marking emphatic prohibitive, in addition to **-rV**, **-ga**, **-IV/-nV**, **-bè**, **-kò**, **dè/dà** and **-V** identified by Alerechi (2015), which respectively mark factative/assertive, progressive, perfect, inceptive, habitual, future and prohibitive. The paper further establishes that in addition to root-controlled vowel harmony noted by Alerechi (2007, 2009), affix-controlled vowel harmony is also attested in Ikwere. Finally, the paper demonstrates that although tense, aspect, mood and polarity are different in theory, in practice they criss-cross themselves in verb forms in Ikwere, thus resulting in such combinations as ‘resultative past’ and ‘future potential’. (University of Port Harcourt · University of Botswana)

Key Words: Verb inflectional morphology, advanced tongue root vowel harmony, affixation, verb forms, tone classes of verbs, Ikwere

1. Introduction

Ikwere is an Igboid language classified under West Benue-Congo within the Niger-Congo phylum (Williamson, 1988; Williamson & Blench, 2000). It is spoken in Ikwere, Emohua, Obio/Akpor and part of Port Harcourt Local Government Areas of Rivers State of Nigeria. The population of Ikwere is estimated at 200,000 people (Crozier & Blench, 1992: 55). However, the National Population Census of 2006 (Federal Government of Nigeria, 2006.) puts the figure at 1,235,412 people. Ikwere is coordinate with other Igboid languages, such as Echie, Ekpeye, Igbo and Ogba. The language has twenty-four dialects, which are mutually intelligible. These dialects are Rumuekpne, Rundele, Odeegnu, Emowha, Ogbakiri, Akpo, Obio, Aluu, Igwuruta, Omagwa, Isiokpo, Ibaa/Obeele, Ipo, Ozuaha, Omuanwa, Ubima, Akpnabu, Egbedna, Omadeeme, Eleele, Omudiogna, Ubimini, Omerelu and Apnani.

In general, the study of verb inflectional morphology, which this study is concerned about, is important to linguists because through it, the secondary grammatical categories of tense, aspect, mood and polarity can be established in a given language. Such study is also crucial to the extent that it helps linguists to ascertain not only how these grammatical categories interact but also the functional load of the verb in the language under investigation. This paper provides a fairly comprehensive description of Ikwere verb inflectional morphology, since no such comprehensive description of this area of study exists in the language at the moment. It focuses on the identification and analysis of the inflectional elements used to mark different categories, such as tense, aspect, mood and polarity, in Ikwere verb forms. It also looks at how vowel harmony interacts with these inflectional elements in the

realization of their forms. Furthermore, the paper discusses how the grammatical categories of tense, aspect, mood and polarity, although different in theory, criss-cross themselves in practice in verb forms in Ikwere. This study will not only add to the literature on verb inflectional morphology in general but will also provide a basis for comparative research between Ikwere dialects and between Ikwere and other cognate or non-cognate languages as far as verb inflectional morphology is concerned. The approach adopted in the analysis and discussion of Ikwere verb inflectional morphology is descriptive, accounting for the primary linguistic data in such a way that agrees with the intuition of the native speakers of the language.

Ikwere data in this paper are drawn from the Omuakwa dialect, which is spoken in Ikwere Local Government Area of Rivers State of Nigeria. The data on phonology were collected by the first author, who incidentally is a competent native speaker of the Omuakwa dialect, from June, 2001-July, 2002 in different communities of Ikwere through direct interviews. The Ibadan wordlist of 400 items (Williamson, 1993) was used to elicit data from a total of twenty-six informants spread across the twenty-four dialects of Ikwere. The verification of the data was done by Edwin Ojirika, K.C. Alerechi and Grace Nyemezuru who are also native speakers of Ikwere. Data for the present study are largely drawn from Alerechi (2015) based on fieldwork done in the Omuakwa community from August-December, 2013 and so indicated in the paper. Supplementary data on Ikwere are based on the speech of the first author. The study analyzes the data on verb inflectional morphology in Ikwere in terms of the functions of linguistic units and the relative positions of these units to each other. All Ikwere data in this paper are transcribed orthographically.

2. Background

Linguistic Morphology is traditionally divided into two branches - inflection and derivation (cf. Bauer, 2003: 91). According to Katamba & Stonham (2006: 223), "inflectional morphology deals with syntactically

determined affixation processes while derivational morphology is used to create new lexical items” (see also Kari, 2015: 93; Nwachukwu, 1983: 61; Crystal, 1997: 195; Ndimele, 1999: 37, 2003: 41; Dimmendaal, 2000: 161; Donwa-Ifode, 2005: 308; Aronoff & Fudeman, 2011: 47). Inflection and derivation are marked in one or more ways in languages of the world. Whereas some languages, like Degema (West Benue-Congo, Nigeria), predominantly use concatenative operations involving the stringing together of morphological units, such as affixes and words in affixal and compound morphology, others like (Albanian and Arabic) predominantly use non-concatenative operations involving root-and-pattern morphology, stem modification, etc. (cf. Kari, 2015: 115). Yet other languages, like Datooga (Nilo-Saharan) and English, including Degema, Albanian and Arabic mentioned above, use a combination of two or more of these operations in marking the processes of inflection and derivation.

A plethora of work is available on verb morphology of different languages of the world, e.g. Tswana (Cole, 1955), Fulfulde (Arnott, 1970), Japanese (Tatsuki, 1981), English (Palmer, 1988), Degema (Kari, 1995), and Igbo (Emenanjo, 1978, 2015) and Echie (Ndimele, 1987, 2003), which are coordinate with Ikwere. The discussion of verb morphology in these languages, regardless of the theoretical persuasion, basically concerns the identification and/or analysis of affixal and non-affixal morphemes in the formation of nominal and verbal bases, among others, and in the expression of categories, such as number, person, tense, aspect, mood, etc. in different constructions.

There are previous studies on the verb morphology of some dialects of Ikwere, such as Akpo, Igwuruta, Obio and Ogbakiri, including the Omuana dialect on which this paper is based. Some of the works that discuss Ikwere verb morphology are Azunda (1987), Worukwo (1999), Ichella (2010), Nwaru (2014) and Alerechi (1987, 2015). Azunda’s (1987) work, based on the Igwuruta dialect, provides a contrastive analysis of affirmative and negative sentences in Ikwere and English with a view to suggesting ways of reducing errors in the speech of Ikwere learners of English as a second language.

Azunda identifies the suffixes **-rV**, **-gà**, the auxiliaries **nò** and **dó**, the allomorphs **-lem/-lam/-nem/-nam** as marking past, habitual, progressive, future and perfect respectively. Worukwo (1999), working on negation in the Ogbakiri dialect, identifies the suffixes **-ru** and **-lem**, and the auxiliaries **ne** and **zi** as markers of past, perfect, progressive and future respectively.

Ichella's (2010: 39ff) work on affixation in the Obio dialect, identifies **-ru** as the past marker and the allomorphs **-le/-ne/-na**, followed by **-m** as the perfect marker, as well as two allomorphs **-a** and **-ge** used in marking negation. He claims that the past suffix **-ru** is not affected by the vowel of the verb base in terms of vowel harmony, and that the perfect marker has the allomorphs **-le/-ne/-na**, followed by **-m**.

Nwaru (2014) examines affixation in the Akpo dialect of Ikwere and classifies affixes based on their position and function (Nwaru 2014: 30ff). In respect of inflectional affixes, Nwaru (2014: 35ff) identifies **-ru/-ru** and **-m¹** as the inflectional suffixes used in marking simple past and perfect respectively.

Alerechi (2015) discusses negation in verb forms in the Qmuanwa dialect. She identifies **-rV**, **-ga**, **-IV/-nV**, **-bè**, **-kò**, **dè/dà** and **-V** as markers of factative/assertive, progressive, perfect, inceptive, habitual, future and prohibitive respectively (Alerechi 2015: 532ff).

3. Aspects of the Phonology of Ikwere

In this section, we shall present some aspects of the phonology of Ikwere that are essential to our understanding of the phonological relationship that

¹ The form **-m** identified by Nwaru (2014: 32ff) as a marker of perfect may not be the correct representation of the shape of the perfect marker in the Akpo dialect, since she lists the present perfect of the verbs **ri** 'eat', **me** 'do' and **la** 'go', for instance, as **ri¹ém** 'has eaten', **me¹ém** 'has done' and **la¹ám** 'has gone' respectively. Given the verb forms **ri** 'eat', **me** 'do' and **la** 'go', it is obvious that **-lem**, **-nem** and **-lam** rather than **-m** are the correct forms of the perfect marker. Our claim is supported by Azunda (1987: 98) who also identifies the forms **lem/lam/nem/nam** as markers of perfect in the Igwuruta dialect.

exists between bound morphemes, such as affixes, and the verb base in the language. The aspects of the phonology we shall discuss are consonants, vowels and vowel harmony, and tone and tone classes.

3.1. Consonants

There are twenty-eight phonemic consonants in Ikwere namely, /m, n, ɲ, ŋ, ŋ^w, p, b, t, d, k, g, k^w, g^w, β, β̄, tʃ, dʒ, f, v, s, z, ɣ, h^w, h, r, j, w, l/, as shown in Table 1. These consonants are represented orthographically as ‘m, n, ny, ñ, nw, p, b, t, d, k, g, kw, gw, kp, gb, ch, j, f, v, s, z, gh, wh, h, r, y, w, l’, respectively. Orthographic symbols, which differ in shape from IPA symbols, are put in parentheses to the right of their IPA counterparts in Table 1.

Table 1. A Phonemic Consonant Inventory of Ikwere

Place of Articulation⇒ Manner of Articulation⇓	Labial	Alveolar	Palatal	Velar	Labial(ized)- Velar/Glottal
S Nasal	m	n	ɲ (ny)	ŋ (ñ)	ŋ ^w (nw)
T Plosive	p b	t d		k g	k ^w (kw) g ^w (gw)
O Implosive	β (kp) β̄ (gb)				
P Trill		r			
S Affricate			tʃ (ch) dʒ (j)		
FRICATIVE	f v	s z		ɣ (gh)	h ^w (wh)h
APPROXIMANT		l	j (y)		w

3.2. Vowels

Ikwere has nine phonemic oral vowels /i, ɪ, e, ε, a, o, ɔ, u, ʊ/ and nine phonemically nasalized vowels /ĩ, ỹ, ẽ, ẽ̃, ã, õ, õ̃, ù, õ̃/, totaling eighteen vowels (Alerechi, 2007: 67f). The oral vowels are represented orthographically as ‘i, j, e, ɛ, a, o, ɔ, u, u’, respectively, whereas the nasalized vowels are represented in the orthography by inserting an ‘n’ between the consonant and vowel of the affected syllable, as we will see in our data.

Ikwere has the type of vowel harmony known as “advanced tongue root

3.3. Tone

Ikwere has five contrastive tones: high (´), low (`), downstep (^), falling (ˆ) and rising (ˇ). The rising tone is rare in the Qmuanwa dialect, as it occurs only in the word **lě** ‘look’. The arrow used to mark downstep is placed between two high-toned syllables (ó^ˆó), indicating that the following high tone is slightly lower than the preceding high tone (cf. Emenanjo, 1978: 11).

Tone plays an important role in Ikwere verb inflectional morphology, as the tones of verb bases tend to behave differently in different verb forms. Nouns and verbs in the language may be classified according to the tones they bear in isolation (Worukwo, 1983; Alerechi, 1987, 2007; Azunda, 1987). Alerechi (1987, 2007) identifies three tone classes of verbs (Tone Class 1 Verbs, Tone Class 2 Verbs and Tone Class 3 Verbs), as shown in Table 2.

Table 2. Tone Classes of Verbs

Tone Class 1		Tone Class 2		Tone Class 3	
Verb	Gerund	Verb	Gerund	Verb	Gerund
mù ‘learn’	òmùmù ‘learning’	đí ‘be’	òđíđí ‘being’	rí ‘eat’	òrírí ‘eating’
zà ‘sweep’	òzìzà ‘sweeping’	là ‘resemble’	òlílà ‘resembling’	nwé ‘have’	ònwúnwé ‘having’
sè ‘draw’	òsìsè ‘drawing’	vù ‘carry’	òvùvù ‘carrying’	gnù ‘sing’	ògnùgnù ‘singing’
lǐnè ‘go (destination)’	òjǐnǐnè ‘going’	tè ‘pound (pepper)’	òtítè ‘pounding’	ré ‘sell’	òrírè ‘selling’
lù ‘fight’	òlùlù ‘fighting’	zù ‘buy’	òzùzù ‘buying’	rí ‘drink’	òrírí ‘drinking’
dnà ‘fall’	òdnǐdnà ‘falling’	rnè ‘burn’	òrnǐrnè ‘burning’	snù ‘wash’	òsnùsnù ‘washing’
vù ‘be (fat)’	òvùvù ‘getting fat’	tà ‘chew’	òtítà ‘chewing’	kpé ‘be (colour)’	òkpùkpé ‘be colouring’
kpè ‘peel’	òkpùkpè ‘peeling’	là ‘go (home)’	òlílà ‘going’	gbà ‘tip (sand)’	ògbùgbà ‘tipping’
		rnù ‘work’	òrnùrnù ‘working’		
		tù ‘plait’	òtùtù ‘plaiting’		
		tí ‘shout’	òtítí ‘shouting’		
		vò ‘comb’	òvùvò ‘combing’		
		kwù ‘talk’	òkwùkwù ‘talking’		

The data in Table 2 show that whereas Tone Classes 1 and 2 verbs bear a low tone in the imperative form, Tone Class 3 verbs bear a high tone.

demarcate front, central and back vowels, and high, mid and low vowels. The vertical broken lines before /a ã/ indicate that these vowels can co-occur with both the expanded and non-expanded sets.”

What distinguishes Tone Class 1 and Tone Class 2 verbs is the tone pattern of the gerunds that derive from the verbs in the two classes. Thus whereas verb bases in gerunds derived from Tone Class 1 verbs bear a high tone, those in gerunds derived from Tone Class 2 verbs bear a falling tone. The verb bases of gerunds derived from Tone Class 3 verbs bear a high tone just like those in the imperative form.

In what follows, we shall discuss Ikwere verb inflectional morphology and how inflectional morphemes in the language characterize different verb forms.

4. Verb Inflectional Morphology in Ikwere

Verb inflections in Ikwere are marked predominantly by suffixes, sparingly by auxiliaries accompanied by prefixal elements, and/or tonal alternations (cf. Emenanjo, 2015: 445). Inflectional elements in the language are used to express the categories of factative, habitual, progressive, present, perfect, inceptive, resultative, potential and negation identified in this paper.

In this section, we shall discuss verbs forms. These consist of a verb base and inflectional affixes attached to it. The verb forms we shall consider are the factative, progressive, perfect, inceptive, habitual, future, resultative, potential, prohibitive and negative.

4.1. The Factative (Past) Verb Form

The term ‘factative’, according Jenewari (1980: 133), is one that is “used to denote a fact, which may be a dynamic situation that has already been completed or a state that once existed or still exists at the time of speaking”. In Ikwere, the factative verb form is a combination of a verb base and a factative suffix, which has the form **-rV** (cf. Azunda, 1987: 98; Worukwo, 1999; Ichella, 2010: 39ff; Nwaru, 2014: 35ff). The underspecified **V** of the factative suffix in the Qmuanwa dialect completely assimilates to the vowel of the immediately preceding syllable of the verb base (cf. Ichella 2010: 39ff). This verb form is used to denote a state or an action that once existed or

is currently in existence. The factative in Ikwere generally has a meaning indicating past. Consider examples 1-6:

- (1) Óchì ò-ò ná áhíá.
 PN³ be-FACT PREP market
 ‘Ochi was in the market’
- (2) Ò rì-rì éde.
 3SG eat-FACT cocoyam
 ‘S/he ate cocoyam’
- (3) Kàchí là-rà dídì á.
 PN resemble-ASRT father 3SG.POSS
 ‘Kachi resembles his father’
- (4) Ò nwè-rnè íwáí.
 3SG have-ASRT money
 ‘S/he is rich’ (lit. ‘S/he has money’)
- (5) Ò nwè-rnè-rnè íwáí.
 3SG have-ASRT-FACT money
 ‘S/he was rich’ (lit. S/he had money’)
- (6) Ò vù-rù-rù ígwè.
 3SG carry-ASRT-FACT bicycle
 ‘S/he carried a bicycle’

Examples (1)-(6) illustrate two different forms of the **-rV** suffix, the factative **-rV** suffix and the assertive or stative **-rV** suffix (cf. Emenanjo 1978: 168). Alerechi (2015: 533) notes that, Ikwere has homophonous **-rV** suffixes, which have past and assertive or stative meanings. Furthermore, she notes

³ The following abbreviations are used in this paper: ASRT = assertive, ATR = advanced tongue root, AUX = auxiliary verb, 2PL = second person plural, 2SG = second person singular, 3PL = third person plural, 3SG = third person singular, EMPH = emphatic, FACT = factative, FUT = future, HAB = habitual, INCEP = inceptive, NEG = negation, RES = resultative, PERF = perfective, POSS = possessive, POT = potential, PPL = participle, PN = proper name, PREP = preposition, PROG = progressive, PST = past, V = vowel.

that the past **-rV** suffix expresses the idea of past, as in (1) and (2), while the assertive **-rV** suffix only affirms what is stated by the verb (cf. Uwalaka, 1981: 104) as in (3)-(6).

Examples (5) and (6), which illustrate a combinatorial attachment of the homophonous factative and assertive **-rV** suffixes to the stative and action verbs respectively, show that whenever the assertive and the factative **-rV** suffixes co-occur in any construction in Ikwere, the assertive suffix is directly attached to the verb root followed by the factative suffix. It is important to note that certain verbs like **là** ‘resemble’, which take the **-rV** assertive suffix cannot take the factative **-rV** suffix as in (3) because of the semantics of such verbs. For instance, it is unlikely for the facial resemblance of someone with another to be affected by time.

In general, except in such constructions as negative imperative, pronominal subject markers⁴ in Ikwere take a low tone, while nominal subjects and objects retain their inherent tone patterns. It is observed that in factative constructions, the verb base and its suffixes take a low tone, irrespective of whether the tone pattern of the verb is inherently high or low. It is unlikely, therefore, that the **-rV** factative and assertive suffixes derive their tone from the tone of the verb base.

4.2. The Future Verb Form

The future verb form is used to express an event that will occur sometime in the future. This verb form is divided into future and inceptive future forms. The future is marked with the auxiliary **dè** or **dà** (cf. the form **dó** in Igwuruta dialect, Azunda, 1987: 98) with the participial prefix **è-/à-** attached to the verb base, depending on the quality of the vowel in the verb base in respect of \pm ATR. This is shown in examples (7) - (9) taken from Alerechi (2015: 541):

⁴ See Kari (2017b) for a discussion of the status of subject markers in African languages. The behaviour of subject markers in Ikwere is similar to what obtains in Igbo with which Ikwere is co-ordinate.

- (7) Ézè dà à-tá á⁺tù.
 PN FUT.AUX PPL-chew chewing-sticks
 ‘Eze will chew chewing-sticks’
- (8) Ò dè è-rí míní.
 3SG FUT.AUX PPL-drink water
 ‘S/he will drink water’
- (9) Wẹ̀ dà à-tú í⁺shî.
 3PL FUT.AUX PPL-plait head
 ‘They will plait their hair’

Examples (7) - (9) show that the future-marking auxiliary and the participial prefix bear a low tone. This demonstrates tone assimilation whereby the participial prefix assimilates to the low tone of the future-marking auxiliary thus causing tone dissimilation between the participial prefix and the verb base to which the participial prefix attaches.

The inceptive future, which is used to denote an action or a state of affairs that will begin in future, is formed by a combination of the future-marking auxiliary **dè** or **dà**, the participial prefix, the verb base and the inceptive suffix **-bé**. Consider examples (10) - (12) taken from Alerechi (2015: 541):

- (10) Wẹ̀ dà à-lù-bé ọ̀gnù.
 3PL FUT PPL-fight-INCEP fight
 ‘They will start fighting’
- (11) Ógè dè è-vú-⁺bé ígbé.
 PN FUT PPL-carry-INCEP box
 ‘Oge will start carrying a box’
- (12) Ì dà à-snú-⁺bé ọ̀nù.
 2SG FUT PPL-wash-INCEP mouth
 ‘You (sg) will start washing your mouth’

Examples (10)-(12) show that the future-marking auxiliary verb and the participial prefix take a low tone as was noted in respect of the future verb

form. This supports Alerechi's (1987: 31) observation that in Ikwere Tone Class 1 verbs take a low-high tone, while Tone Classes 2 and 3 take a high-downstepped tone. The vowel of the verb base conditions the vowel of the auxiliary and the participial prefix, indicating regressive assimilation. When the verb base contains an expanded vowel, the vowel of the prefix and the auxiliary is 'e', as in (11), whereas it is 'a' when the vowel in the verb base is non-expanded, as in (10) and (12).

4.3. The Perfect Verb Form

The perfect verb form consists of a verb base and a suffix **-IV** (cf. Azunda, 1987: 98; Worukwo, 1999; Ichella, 2010: 39ff; Nwaru, 2014: 35ff), which expresses a past action or an event with present relevance. The perfect-marking suffix has four allomorphs **-lé**, **-lá**, **-né** and **-ná** whose distribution is conditioned by vowel harmony, nasality and by the height of the vowel of the last syllable of the verb base. It is observed that **-lé** and **-lá** attach to a verb base that does not contain a nasal consonant or a nasalized vowel, as in (14) and (17). Also, the vowel of the suffix completely assimilates to the vowel of the immediately preceding syllable (of the verb base), as revealed by examples (14) and (17).

Conversely, **-né** and **-ná** attach to a verb base that contains a nasal consonant or a nasalized vowel, as in (13), (15) and (16). Unlike **-lé** and **-lá**, the vowels of **-né** and **-ná** seem to be restricted by the height of the vowel in the immediately preceding syllable of the verb base. Consequently, the allomorph **-né** attaches to a verb base that ends with a non-high vowel whereas the allomorph **-ná** attaches to a verb base that ends with a high vowel, as a comparison of (13) and (16) and (15) shows. The data in (13)-(17) are taken from Alerechi (2015: 539):

- (13) Úrè m̀̀-̀̀ná ̀̀*̀̀gǹ̀.
 PN learn-PERF counting
 'Ure has learnt counting'

- (14) Ò zà-lá ọ̀rọ̀.
 3SG sweep-PERF house
 ‘S/he has swept (the) house’
- (15) Ò rné-né ní*knú.
 3SG burn-PERF fire
 ‘It has caught fire’
- (16) Ò rnú-ná àchàrà.
 3SG weed-PERF grass
 ‘S/he has weeded (the) grass’
- (17) Àchì ré-lé á*tù.
 PN sell-PERF chewing-stick
 ‘Achi has sold chewing-sticks’

Further observations reveal that the tone of the perfect suffix is consistently high, while that of the verb base varies, depending on the tone class of the verb base. In grammatical context, the verb bases **mù** ‘learn’ and **zà** ‘sweep’ in (13) and (14) are on a low tone because they belong to Tone Class 1, while **mé** ‘burn’, **mù** ‘weed’ and **ré** ‘sell’ in (15), (16) and (17) are on a high tone because **mé** ‘burn’ and **mù** ‘weed’ belong to Tone Class 2 and **ré** Tone Class 3. For a detailed discussion of tone classes of verbs in Ikwere, see Alerechi (1987, 2007). Also see 3.3.

4.4. The Progressive Verb Form

The progressive verb form is a combination of the verb base and the suffix **-gà**. This verb form expresses an action or event that continues through time (cf. Ndimele 2003: 43). Ikwere distinguishes present progressive and past progressive. While present progressive is used to denote a present action that continues through time, past progressive is used to denote a past action or event that continued through time. Present progressive is marked by the suffix **-gà**, whereas past progressive is marked by the presence of **-gà** followed by the factative **-rV** suffix. Consider examples (18) and (19) taken from Alerechi

(2015: 537f):

- (18) a. Kèlé tèt-gà úsnè.
 PN pound-PROG pepper
 ‘Kele is pounding pepper’
- b. Kèlé tèt-gà-rà úsnè.
 PN pound-PROG-FACT pepper
 ‘Kele was pounding pepper’
- (19) a. Ò zùt-gà úwó.
 3SG buy-PROG cloth
 ‘S/he is buying a cloth’
- b. Ò zùt-gà-rà úwó.
 3SG buy-PROG-FACT cloth
 ‘S/he was buying a cloth’

The tonal behaviour of pronominal subject markers, nominal subjects and objects, verb base and progressive-marking suffixes is like what obtains in the factative verb form, as examples (18) and (19) show. Similarly, the vowel of the factative suffix, completely assimilates to the vowel of the immediately preceding syllable, which in this case is the progressive suffix **-gà**, as examples (18b) and (19b) show.

4.5. The Inceptive Verb Form

This verb form consists of a verb base and an inceptive-marking suffix **-bè**, which in turn is followed by **-lé**, an allomorph of the perfect suffix. The inceptive verb form is used to express an action that started before a definite time in the past. As a general tendency, the inceptive **-bè** and perfect **-lé** suffixes respectively harmonize with the vowel of the verb base in \pm ATR, as (20)-(22) show:

- (20) Ò sè-bè-lé á⁺kwâ.
 3SG draw-INCEP-PERF egg
 ‘S/he has started drawing an egg’
- (21) Ọ⁺nú lá-bè-lé ọ̀rò.
 PN go-INCEP-PERF house
 ‘Onu has started going home’
- (22) Ụ̀rè ré-bè-lé jí.
 PN sell-INCEP-PERF yam
 ‘Ure has started selling yam(s)’

The data in (20)-(22) reveal that there is tone polarity between the inceptive and the perfect suffixes in inceptive constructions in Ikwere. Whereas the inceptive suffix bears a low tone, the perfect suffix bears a high tone (see Alerechi, 1987 for a discussion of tonal behaviour of verbs in Ikwere).

4.6. The Resultative Verb Form

The resultative verb form is used to express an aspectual distinction in which a resultant state of being is predicated upon some past action or activity. Resultative aspectual constructions basically consist of a subject, a verb, possibly an object, and a result phrase (cf. Helgason, 2009: 1). In Ikwere, resultative aspect is marked by the suffix **-kàtà**. It is formed by a combination of the verb base, the resultative suffix and the factative **-rV** suffix. Consider examples (23) - (25):

- (23) Ò jnè-kàtà-rà íjnè í⁺nwé gwú á.
 3SG walk-RES-FACT walk breath finish 3SG
 ‘S/he walked until s/he got tired’
- (24) Ọ̀ tà-kàtà-rà òkpúkú ọ̀⁺nú kná á.
 3SG chew-RES-FACT bone mouth weak 3SG
 ‘S/he chewed the bone until her/his mouth became weak’

- (25) Ò tì-kàtà-rà ọ̀là (kè) ákpírí gnò à.
 3SG shout-RES-FACT shout (that) voice crack 3SG
 ‘S/he shouted until her/his voice cracked’

As in the past progressive and past habitual verb forms (see 4.7.), where the vowel of the past suffix assimilates to that of the progressive and habitual suffixes, the vowel of the factative suffix assimilates completely to the vowel of the resultative suffix, which immediately precedes the factative **-rV** suffix. Similar to the tonal behaviour of verbs in the progressive and habitual verb forms, the verb base and all the suffixes attached to it in the resultative verb form bear a low tone.

4.7. The Habitual Verb Form

In Ikwere, the habitual verb form consists of a verb base and a suffix **-kò**, which expresses the fact that an action occurs every day or always. Two forms of habitual can be distinguished in Ikwere – present habitual and past habitual. Present habitual is expressed by attaching the suffix **-kò** to the verb base, as in (26a), (27a) and (28a), while past habitual is expressed by a combination of the habitual suffix and the factative **-rV** suffix, as in (27b), (27b) and (28b). In this combination, the factative **-rV** suffix follows the habitual suffix. Verb forms, such as we see in (29a) and (29b) and (30a) and (30b) merely express present and past respectively. Examples (26)-(30) taken from Alerechi (2015: 536) are used to illustrate the two patterns of the habitual verb form:

- (26) a. Ézè jnè-kò úbì.
 PN go-HAB farm
 ‘Eze goes to (the) farm always’
- b. Ézè jnè-kò-rò úbì.
 PN go-HAB-FACT farm
 ‘Eze used to go (the) farm always’

- (27) a. Ọ̀ zù-kò àlì.
 3SG buy-HAB land
 ‘S/he buys a piece of land always’
- b. Ọ̀ zù-kò-rò àlì.
 3SG buy-HAB-FACT land
 ‘S/he used to buy a piece of land always’
- (28) a. Ọ̀ rì-kò ọ̀sná.
 3SG eat-HAB squirrel
 ‘S/he eats squirrel(s) always’
- b. Ọ̀ rì-kò-rò ọ̀sná.
 3SG eat-HAB-FACT squirrel
 ‘S/he used to eat squirrel(s) always’
- (29) a. Ézè jnè úbì.
 PN go farm
 ‘Eze goes to (the) farm’
- b. Ọ̀ zù àlì.
 3SG buy land
 ‘S/he buys a piece of land’
- (30) a. Ézè jnè-rè úbì.
 PN go-FACT farm
 ‘Eze went to (the) farm’
- b. Ọ̀ zù-rù àlì.
 3SG buy-FACT land
 ‘S/he bought a piece of land’

Examples (26)-(30) reveal that all the tones in the habitual verb form, i.e. verb + suffixes, are low irrespective of the tone class of the verb base. Interestingly, the vowel of the habitual marker **-kò**, unlike those of other inflectional affixes, is unaffected by the quality of the vowel of the verb base in terms of expandedness or non-expandedness, as a comparison of (27) and (28) shows. Rather, the vowel of the habitual suffix provides the basis of

vowel harmony for the factative **-rV** suffix, which completely assimilates to the vowel of the habitual suffix, as (26b) and (27b) show. This is a case of affix-controlled vowel harmony (cf. Mutaka & Tamanji, 2000: 56f).

4.8. The Potential Verb Form

The potential verb form is used to express the ability to perform a task. It is marked by the suffix **-li** attached to the verb base. In Ikwere, the potential verb form has two readings: an emphatic reading and a non-emphatic reading. These two readings are marked by different verb forms. In the emphatic reading, the verb base, together with the potential marker, are preceded by the future-marking auxiliary verb, whereas in the non-emphatic reading, the future-marking auxiliary verb is absent. Consider examples (31) and (32):

- (31) a. Ọ gnụ-lì érí.
 3SG sing-POT song
 ‘S/he can sing’ (Non-emphatic)
- b. Ọ dà à-gnụ-lí érí.
 3SG FUT PPL-sing-POT song
 ‘S/he can sing’ (Emphatic)
- (32) a. Wẹ rnụ-lì árnụ.
 3PL work-POT work
 ‘They can work’ (Non-emphatic)
- b. Wẹ dà à-rnụ-lí á⁺rnụ.
 3PL FUT PPL-work-POT work
 ‘They can work’ (Emphatic)

Examples (31a) and (32a) illustrate the fact that the non-emphatic potential verb form takes a low tone. Whereas in (31b) the tone of the verb base is high, that of the verb base in (32b) is low. The tone of the potential suffix is high in the emphatic potential verb form, as seen in (31b) and (32b). Like the past habitual, it is observed that the potential marker **-li** is unaffected

by the expanded or non-expanded feature of the verb base.

4.9. The Prohibitive Verb Form

The prohibitive verb form in Ikwere is marked by an underspecified vowel suffix **-V** attached to the verb base. The vowel of suffix that attaches to the verb base is phonetically realized as **-e**, **-a**, **-o** or **-o**, depending on the nature of the (final) vowel in the verb base in terms of pharyngeal, tongue and lip features. The attachment of the prohibitive suffix to the verb indicates that the addressee is prohibited from embarking on an action specified by the verb. Consider examples (33) - (40) taken from Alerechi (2015):

- | | | |
|------|---------|--------------------|
| (33) | Í | rì-è. |
| | 2SG.NEG | eat-NEG |
| | | ‘Don’t eat’ |
| (34) | Í | jnè-è. |
| | 2SG.NEG | go-NEG |
| | | ‘Don’t go’ |
| (35) | Í | zà-à. |
| | 2SG.NEG | sweep-NEG |
| | | ‘Don’t sweep’ |
| (36) | Í | dnà-à. |
| | 2SG.NEG | fall-NEG |
| | | ‘Don’t fall’ |
| (37) | Í | vò-ò. |
| | 2SG.NEG | comb-NEG |
| | | ‘Don’t comb’ |
| (38) | Í | kwù-ò. |
| | 2SG.NEG | talk-NEG |
| | | ‘Don’t talk/speak’ |

In examples (33) and (34), the form of the prohibitive suffix is **-e**. This is the form of the suffix when the verb root ends with a mid, front (unrounded) vowel. The form of the suffix is **-a** when the verb root ends with the low vowel **a**, as seen in examples (35) and (36). In examples (37) and (38) where the verb bases end with back (rounded) vowels, the forms of the suffix are **-o**, and **-ɔ**, respectively. The forms **-o** and **-ɔ** are further determined by the vowel harmony that operates in the verb base so that the form **-ɔ** in (37) is used when the verb base contains a non-expanded vowel, while the form **-o** in (38) is used when the verb root contains an expanded vowel. It is observed also that both the verb base and prohibitive suffix take a low tone.

Like the habitual verb form, the prohibitive verb form is also characterized by the emphatic and non-emphatic distinctions. Let us consider examples (39)-(42):

- (39) $\acute{í}$ $\acute{*}rí-ká-lâ.$
 2SG.NEG eat-EMPH-NEG
 ‘Don’t eat’ (Emphatic)
- (40) $\acute{í}$ $\acute{*}jnë-ká-lâ.$
 2SG.NEG go-EMPH-NEG
 ‘Don’t go’ (Emphatic)
- (41) $\acute{í}$ $\acute{*}zá-ká-lâ.$
 2SG.NEG sweep-EMPH-NEG
 ‘Don’t sweep’ (Emphatic)
- (42) $\acute{í}$ $\acute{*}kwú-ká-lâ.$
 2SG.NEG talk-EMPH-NEG
 ‘Don’t talk/speak’ (Emphatic)

Unlike examples (33)-(38), which are non-emphatic, examples (39)-(42) are emphatic. Emphatic and non-emphatic prohibitive verb forms in Ikwere are distinguished by two different sets of suffixes. The non-emphatic

prohibitive verb form is marked by the attachment of the **-e**, **-a**, **-o** or **-o** allomorphs of the underspecified suffix to the verb base, as in (33)-(38). The emphatic prohibitive verb form, on the other hand, is marked by the attachment of a combination of the emphatic suffix **-ka** and a negative suffix **-lâ** to the verb base, as seen in (39)-(42). It is interesting to note that the presence of a high tone on the second person singular pronominal subject marker is characteristic of prohibitive constructions in Ikwere. Tonally, the syllable of the verb base, which precedes the emphatic suffix, is downstepped; the emphatic suffix is high toned, while the negative prohibitive suffix bears a falling tone.

4.10. The Negative Verb Form

Negation is marked differently in different verb forms in Ikwere. Some of the inflectional morphemes used in marking negation are identified by Alerechi (2015). In this section, we shall discuss negation in different verb forms.

4.10.1. Negation in Stative Verbs

A negative stative verb conveying present meaning is marked by an underspecified negative suffix **-V** whose allomorphs are realized as **-è**, **-à**, and **-ò** or **-ò**, as in examples (43b) - (46b):

(43) a. Ò kpè mọnó-mọnó
 3SG be oil-oil
 ‘It is red’

b. Ò kpé-è mọnó-mọnó.
 3SG be-NEG oil-oil
 ‘It is not red’

- (44) a. Ò dì m̀kpú̀m̀kpú̀.
 3SG be short
 ‘S/he is short’
- b. Ò dí-à m̀kpú̀m̀kpú̀.
 3SG be-NEG short
 ‘S/he is not short’
- (45) a. Ò vù-rù ívù
 3SG be-ASERT fat
 ‘S/he is fat’
- b. Ò vù-rù-ò ívù.
 3SG be-ASERT-NEG fat
 ‘S/he is not fat’
- (46) a. Áwhnà á *bù Ùdnó.
 PN 3SG be Udno
 ‘His/her name is Udno’
- b. Áwhnà á *bù-ò Ùdnó.
 PN 3SG be-NEG Udno
 ‘His/her name is not Udno’

Like what we noted in 4.9, the negative vowel suffix that attaches to a stative verb base is realized as **-e**, **-a**, **-o** or **-ɔ**, depending on the nature of the (final) vowel in the verb base in terms of pharyngeal, tongue and lip features. The allomorphs of the negative suffix are **-e** and **-a** when the verb base ends with a front (unrounded) vowel, while the allomorphs of the negative suffix are **-o** and **-ɔ**, when the verb root ends with a back (rounded) vowel. The forms **-o** and **-ɔ** are further determined by the vowel harmony that operates in the verb base. In this regard, the form **-ɔ** is used with verb bases that contain a non-expanded vowel, while the form **-o** is used with verb bases that contain expanded vowels.

4.10.2. The Negative Habitual Verb Form

In dynamic verbs, i.e. verbs that express one form of action or the other, negative present habitual meaning is marked by the allomorphs **-e**, **-a**, **-o**, or **ø** depending on the nature of the vowel in the verb base in terms of pharyngeal, tongue and lip features. This is similar to the negative marker in stative verbs in 4.10.1. See examples (47b)-(50b) taken from Alerechi (2015: 531):

- (47) a. Àdná kpè mbàlàkà.
 PN peel cassava
 ‘Adna peels/peeled cassava’
- b. Àdná kpé-è mbàlàkà.
 PN peel-NEG cassava
 ‘Adna does not peel cassava’
- (48) a. Ò gbà á*jná.
 3SG tip sand
 ‘S/he tips/tipped the sand’
- b. Ò gbá-à àjnà.
 3SG tip-NEG sand
 ‘S/he does not tip the sand’
- (49) a. Ò vù èkpèrì.
 3SG carry basket
 ‘S/he carries/carried a basket’
- b. Ò vù-ò èkpèrì.
 3SG carry-NEG basket
 ‘S/he does not carry a basket’
- (50) a. Ò sù édè.
 3SG pound cocoyam
 ‘S/he pounds/pounded cocoyam’

- b. Ò sù-ò èdè.
 3SG pound-NEG cocoyam
 ‘S/he does not pound cocoyam’

Examples (47b) - (48b) show that the negative allomorphs **-e**, and **-a** are attached to verb bases ending with front vowels and the choice of each of the allomorphs is determined by the expandedness and non-expandedness of the vowel of the verb base in terms of the shape of the pharynx. Conversely (49b) and (50b) demonstrate that the allomorphs **-o** and **-ɔ** are added to verb bases ending with back vowels. While the allomorph **-o** is affixed to verb bases with expanded back vowels, **-ɔ** is attached to those with non-expanded back vowels. There is tonal dissimilation in the negative present habitual verb form unlike the affirmative verb form, which is consistently marked by a low tone. For the negative present habitual, the verb base takes a high tone, while the negative allomorphs take a low tone.

4.10.3. The Non-Emphatic Negative Verb Form

In dynamic verbs, non-emphatic negative past is marked by the negative allomorphs **-lê/-lâ** or **-nê/-nâ**. While the choice of the allomorphs **-lê/-lâ** is determined by the vowel harmony operating in the verb base, that of the allomorphs **-nê/-nâ** is determined by the nasality of the segment(s) in the verb base. This is illustrated by (51)-(54) taken from Alerechi (2015: 530f):

- (51) a. Ò vù èkpèrì.
 3SG carry basket
 ‘S/he carries/carried a basket’
- b. Ò vù-^{*}lê èkpèrì.
 3SG carry-NEG basket
 ‘S(He) did not carry a basket’

- (52) a. Ọ sù édè.
 3SG pound cocoyam
 ‘S/he pounds/pounded cocoyam’
- b. Ọ sù-⁺lâ èdè.
 3SG pound-NEG cocoyam
 ‘S/he did not pound cocoyam’
- (53) a. Úrù jnè áhíá.
 PN go market
 ‘Uru goes/went to market’
- b. Úrù jné-⁺nê àhịà.
 PN go-NEG market
 ‘Uru did not go to market’
- (54) a. Ûdnó rnụ àchàrà.
 PN weed grass
 ‘Udno weeds/weeded grasses’
- b. Ûdnó rnụ-nâ àchàrà.
 PN weed-NEG grass
 ‘Udno did not weed grasses’

Examples (51b) and (52b) show that the non-emphatic negative past is marked by the allomorphs **-lê/-lâ** attached to verb bases ending with oral vowels and that the choice of any of the allomorphs is further determined by the vowel harmony of the verb base. Conversely, the allomorphs **-nê/-nâ** in (53b) and (54b) are suffixed to verb bases with some element of nasality. These allomorphs are further determined by the expandedness and non-expandedness of the vowel of the verb base. While the negative allomorphs consistently take a falling tone, the verb base is marked by a high tone.

4.10.4. The Emphatic Negative Verb Form

Dynamic verbs expressing emphatic negative past are characterized by the

presence of an inherent negative auxiliary verb. The inherent auxiliary verb has the allomorphs **mê/mâ**. The choice of these allomorphs is determined by the vowel harmony that operates in the following verb base. The inherent negative auxiliary co-occurs with the harmonizing participial prefix **-è/-à** that attaches to the verb base, as in (55) and (56) taken from Alerechi (2015: 530):

(55) Ò mê è-vú èkpèrì.
 3SG AUX.NEG PPL-carry basket
 ‘S/he did not carry a basket’

(56) Ò mâ à-sú édè.
 3SG AUX.NEG PPL-pound cocoyam
 ‘S/he did not pound cocoyam’

Examples (55) and (56) show that the choice of the negative auxiliary **mê/mâ**, with the harmonizing prefix **-è/-à**, is dependent on the expandedness or non-expandedness of the vowel of the verb base. The negative auxiliary consistently takes a falling tone, while there is tone dissimilation between the participial prefix and the verb base.

It is interesting to note that in addition to using inflectional affixes to mark negation in Ikwere, tonal alteration alone can be used to signal negation in the language. An illustrative example of how tonal alteration is used to signal negation is given in (57):

(57) a. Kèlé tè-gà úsnè.
 PN pound-PROG pepper
 ‘Kele is pounding pepper’
 b. Kèlé té-gà ùsnè.
 PN pound-PROG.NEG pepper
 ‘Kele is not pounding pepper’

Example (57a) shows that the verb in progressive affirmative sentences is marked by the presence of a low tone, whereas the tone of the verb base

changes to a high tone in the negative, as in (57b). In other words, when negation is signalled solely by tone, there is tone dissimilation between the verb base and the inflectional suffix attached to the verb base.

5. Interaction between Tense, Aspect, Mood and Negation in Ikwere

The discussion of verb forms in Ikwere reveals that in many cases, there is interaction between the categories of tense, aspect, mood and polarity (cf. Alerechi, 1987, 2015; Azunda, 1987). Although tense, aspect, mood and polarity are different in theory, in practice “they cut-across and criss-cross themselves in verb forms” (Emenanjo, 2015: 460). The aim of this section is to show how the inflectional categories of tense, aspect, mood and polarity criss-cross themselves in Ikwere verb forms. The verb forms that involve the criss-crossing of some of these grammatical categories are progressive, inceptive, habitual, future, resultative and prohibitive. In what follows, we shall look at the interactions between tense and aspect, tense and mood, and aspect and polarity.

5.1. Interaction between Tense and Aspect

The interaction between tense and aspect in Ikwere is seen in the progressive, inceptive, future and resultative verb forms. In the progressive (see 18b repeated as 58), inceptive (see 20 repeated as 59), future (see 10 repeated as 60) and resultative (see 23 repeated as 61) verb forms, there is interaction between tense and aspect, resulting in such combinations as ‘past progressive’, ‘inceptive perfect’, ‘inceptive future’ and ‘resultative past’. The terms ‘past’ and ‘future’ are associated with tense, while ‘progressive’, ‘perfect’, ‘inceptive’ and ‘resultative’ are associated with aspect:

- (58) Kèlé tèt-gà-rà úsnè.
 PN pound-PROG-FACT pepper
 ‘Kele was pounding pepper’
- (59) Ò sèt-bèt-lé á⁺kwâ.
 3SG draw-INCEP-PERF egg
 ‘S/he has started drawing an egg’
- (60) Wèt dà à-lù-bé ògnù.
 3PL FUT PPL-fight-INCEP fight
 ‘They will start fighting’
- (61) Ò jnèt-kàtà-rà íjnèt í⁺nwé gwù á.
 3SG walk-RES-FACT walk breath finish 3SG
 ‘S/he walked until s/he got tired’

5.2. Interaction between Tense and Mood

Tense and mood interact in habitual and potential verb forms. Such interaction between habitual (see 26b repeated as 62) and potential (see 31b repeated as 63) forms result in combinations as ‘past habitual’ and ‘future potential’, with ‘past’ and ‘future’ associated with tense and ‘habitual’ and ‘potential’ associated with mood:

- (62) Ézèt jnèt-kò-rò úbì.
 PN go-HAB-FACT farm
 ‘Eze used to go the farm always’
- (63) Ò dà à-gnú-lí érí.
 3SG FUT PPL-sing-POT song
 ‘S/he can sing’ (Emphatic)

5.3. Interaction between Aspect and Polarity

The interaction between aspect and polarity is seen in emphatic negative

verb forms. In progressive negative verb forms (see 57b repeated as 64), the interaction between these categories result in such combination as ‘progressive negative’. Whereas ‘progressive’ is associated with aspect, ‘negative’ is associated with polarity:

- (64) Kèlé té-gà ùsnè.
 PN pound-PROG.NEG pepper
 ‘Kele is not pounding pepper’

It is worthwhile to state that combinatorial possibilities involving different inflectional categories are not peculiar to Ikwere. Such possibilities are common in languages where two or more of these categories are present (cf. Emenanjo, 1978, 2015; Ndimele, 1996; Kari, 2003).

6. Conclusion

In this paper, we have provided a fairly comprehensive description of Ikwere verb inflectional morphology. Some general points that emerge from our discussion include the fact that tense, aspect, mood and negation in Ikwere are predominantly marked by affixal morphemes, especially suffixes, combined with auxiliary verbs and tone. Also evident is the fact that the verb in Ikwere has a high functional load, as it is the element on which the markers of tense, aspect, mood and negation anchor. The paper makes a number of specific contributions which have some bearing on Ikwere, Igbo and general linguistics.

First, it notes that the verb base in Ikwere can have more than one inflectional suffix attached to it. This is similar to Emenanjo’s (1978: 186) observation in Igbo (an Igbo language spoken in the eastern part and in some parts of southern Nigeria). He notes that in Igbo a verb base in the future-perfective affirmative, for instance, can host one or more inflectional suffixes, such as the future, indicative affirmative and perfective markers (see also Emenanjo, 2015: 461f). The paper also notes that in most cases, the

forms and choice of the appropriate allomorphs of a given inflectional affix in Ikwere is dependent on the ATR, nasal or labial features of the vowels in the verb base.

Second, in addition to the factative (past) **-rV** (**-ri**, **-rj**, **-re**, **-ra**, **-ro**, **-rɔ**, **-ru** and **ru**), perfect **-IV/-nV** (**-lé**, **-lá**, **-né** and **-ná**), progressive **-ga**, inceptive **-bè**, habitual **-kò** and prohibitive **-V** (**-e**, **-a**, **-o** or **-ɔ**) suffixes, and the future-marking **dè/dà** auxiliary identified by Alerechi (2015), this paper identifies the forms **-kata** and **-li** as markers of resultative aspect and potential mood respectively. It also identifies the combination **-ká** and **-là** as marking emphatic prohibitive.

Third, the paper notes interesting tonal behaviour in verb bases and inflectional markers in certain verb forms, which is associated with the tone classes of the verbs. For example, the paper observes that the tone of the perfect suffix is consistently high, while that of the verb base varies depending on its tone class. In the perfect verb form (see 4.3.), the verb bases **mù** ‘learn’ and **zà** ‘sweep’ are on a low tone because they belong to Tone Class 1, while **mé** ‘burn’, **mú** ‘weed’ and **ré** ‘sell’ are on a high tone because **mé** ‘burn’ and **mú** ‘weed’ belong to Tone Class 2 and **ré** Tone Class 3.

Fourth, the paper establishes that both root-controlled and affix-controlled vowel harmony are attested in Ikwere. In this regard, the paper notes that whereas the factative, perfect, inceptive, prohibitive and negative non-emphatic past suffixes are root-controlled vowel harmony suffixes (Alerechi, 2007, 2009), the progressive, habitual, resultative and potential suffixes are affix-controlled vowel harmony suffixes. Specifically, the paper observes that where two suffixes are attached to a verb base in Ikwere, the inner suffix is either an aspectual or mood marker while the outer suffix is a factative marker. In this relative order, the inner suffix controls the outer suffix in respect of vowel harmony, since the outer suffix completely assimilates to the vowel of the inner suffix. The suffixes that are found to control other suffixes that follow them in respect of ATR vowel harmony are the progressive **-ga**, habitual **-kɔ**, resultative **-kata**, and potential **-li**. This observation suggests that the vowels of affix-controlled vowel harmony

suffixes are opaque to vowel harmony operation in the verb base of the verb forms in which these suffixes occur (cf. Mutaka & Tamanji, 2000: 56f).

Fifth, the paper demonstrates that the grammatical categories of tense, aspect, mood and polarity, although seemingly different in theory, criss-cross themselves in practice in verb forms in Ikwere. The criss-crossing of these categories results in such terminological combinatorial possibilities as ‘past progressive’, ‘inceptive perfect’, ‘inceptive future’ and ‘resultative past’.

It is hoped that this study will not only add to the literature on verb inflectional morphology in general but will also provide a basis for a comparative study between Ikwere dialects and between Ikwere and other cognate or non-cognate languages as far as verb inflectional morphology is concerned.

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