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The Internal Structure of Words in Èwulu

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Abstract

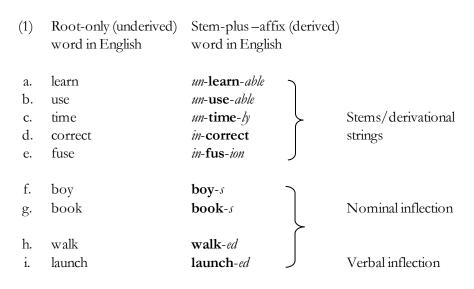
The make-up of the internal structure of words in Ewulu provides strong confirmation of the assertion by linguists that words in languages of the world are characteristically composed of morphemic elements known as roots, stems and affixes. Roots are the base form of a word which cannot be fragmented into smaller units without total loss of meaning or identity; whereas stems are a combination of roots and affixes in the formation of entirely new divisible complex words. The objective of this study using existing data is to examine the internal structure of words in Ewulu, differentiate roots from stems and then show how the productive root-turned-stems combine with affixes to form additional/new vocabulary in Ewulu. The study adopts the descriptive model of linguistic theory to show the stringent systematic morphological principles that underlie the Ewulu word internal structure. As the study indicates, Ewulu words are composed of roots and stems. The roots, particularly the verb roots in combination with affixes are extensively morphologised via affixation processes for the sole aim of creating vocabularies of varying word dasses that characterise the world view and culture of the Èwulu people. On the whole, the study significantly contributes to research efforts geared toward a description of linguistic features of small minority indigenous languages/dialects spoken in Nigeria.

Key words: Ewulu, Words, Roots, Stems, Affixes

1. Introduction

Every language (Èwulu¹ inclusive) has a bulk of words which are combined in some systematic way to form morpho-syntactic strings used for meaningful communication, a principle, and an aspect of linguistic study referred to as 'morphology' (Matthews, 1991; Katamba, 1993; Dimmendaal, 2000; Yule, 2010). Morphology is one of the modules of the grammar which deals with the principles that govern the formation of words in language. According to Matthews (1991), morphology is concerned with the internal structure of words and their relationship to other words within the paradigm. Words which are referred here more technically as 'lexemes', are typically composed of roots (i.e. base). In this work, we refer to root as *base-only word*, or alternatively *underived or lexical* words. Some linguists, e.g. Gussenhoven and Jacobs (2011) refer to roots as 'simplex' words. In effect, words may be composed of roots and affixes to form what is technically referred to as *stems*.

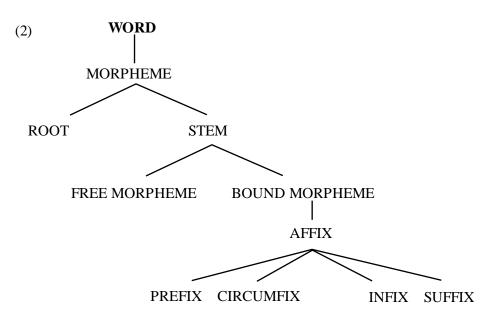
In (1) we draw few examples of the two broad categories of word formations processes mentioned in the foregoing from the more familiar language, English for a better understanding of how the morphological structure of \dot{Ewulu} operates, as follows:



As the English illustration in (1) shows, additional words are produced by attachment of morphological units called affixes to roots. The roots are so called because they naturally stand on their own with no affixes attached to them. Whereas in the second column, we find the same simplex (root) words (in bold print, otherwise known as stems) somewhat 'extended' structurally via the attachment of semantically 'empty' leftward and rightward affixes called *prefixes* and *suffixes* respectively.

Basically, in language affixes do not attach to simplex words or stems randomly; they attach rather systematically to stems that are members of a particular grammatical category. For example, the suffixes *s*- and *ed*- illustrated in (1) typically attach to nouns and verbs in English and never to other categories. Thus "affixes, as Gussenhoven and Jacobs opine "are 'subcategorised' for a category membership (p. 7, 8). Thus, the forms in (1f - i) have affixes, i.e. suffixes (also called bound morphemes) and are attached to the base/stem elements to the right in the formation of plural and tense in English. By implication, the type of affix attached to base forms (stems) is dependent upon the word class of the lexeme/root/word in question.

The fascinating strategies of word production espoused in (1) are basically categorised into lexical/derivational morphemes and inflectional morphemes. In (2) we present a template that provides a vivid impression of what the internal structure of the word in language looks like, which, as will be shown in subsequent Sections, is implicated in the current description of the internal structure of words in Ewulu.



The template in (2) simply suggests that a unit called WORD is largely composed of morpheme, and the morpheme in turn is composed of root or stem-plus-affix. The stem-affix combination is subcategorised into free morpheme and bound morpheme in that order. The affix has subcategorised forms called prefix, infix, interfix and suffix. The entire strata working together implicitly or explicitly generate the English forms in (1) as well as the Ewulu forms that will be examined in Sections 3 and 4.

2. Background on the Èwulu Dialect

Èwùlù is an Igboid lect spoken by a people known by the same name in the northern part of Delta State, south-south, Nigeria. Being an Igbo dialect, it belongs to the group of languages which Blench (1989) classifies as West Benue Congo. According to Utulu (2015:106), 'Èwùlù is a small language in the sense that, demographically, it has only about 15,000 native speakers of the about 166.2 million people in Nigeria (Nigeria Population Census, 2006; Ezimechine, 2014). According to Utulu (2015), the Èwùlù population figure is statistically about 0.01% of the entire Nigerian population.

Moreover, Utulu reports that Èwùlù is one of the clusters of Igboid called 'Énuani'. The dialect clusters occupy the west axis of the River Niger Basin. Other cluster groups that form part of the Igboid are Ìka and Úkwuani. The three cluster groups are formally referred to as "Delta Igbo" or "Western Igbo" (Emenanjo, 1978) due to their seeming close linguistic affinity with the Eastern Igbo varieties spoken in the east axis of the River Niger.

Phonologically, Èwùlù has an inventory of twenty-five (25) consonant segments and nine (9) vowel segments. The thirty-four (34) phonological units combine in a systematic way to form morphemes/words in the lect. The 25 consonants are /p, b, t, d, k, g, kw, gw, β , δ , t \int , d3/. Other consonants are /l, r, j, m, n, p, η w, f, s, z, \int , h, w/. The 9 vowels are /i, e, o, u, I, υ , ε , \mathfrak{d} , a.

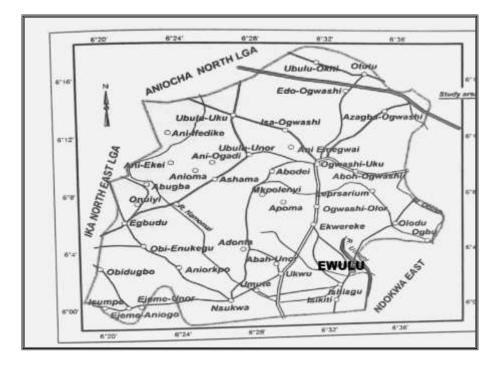


Figure 1- Map of Aniocha South Local Government Area, Delta State, indicating location of Èwulu, the study area. (Source: The Directorate of Lands and Surveys, Governor's Office, Asaba, Delta State)

The vowels /i, e, o, u/ and /I, υ , ε , υ , a/ pattern in some way within simplex and complex words, in what is called vowel harmony (Utulu, in preparation). The harmonic feature also found to operate in central Igbo and Akan (Ghana) is based on the extension or retraction of the tongue root (Stewart, 1967; Lindau, 1975; Emenanjo, 1978). Specifically, the former set of vowels is regarded as [+ATR] vowels because their phonetic implementation involves extension/advancement of the tongue root. Whereas the latter set of vowels is identified as [-ATR] because their articulatory implementation involves retraction of the tongue root.

3. The Morphological Structure of Èwulu Words

This chapter explores the internal structure of roots and stems using existing data (Utulu, 2014; 2015) and show how they work in building/creating words of different word class in Ewulu. Before now no

morphological literature is available to showcase the wide range of morphological procedures Èwulu adopts to derive words and morphemes like what obtains in the morphologies of languages of the world.

3.1 Roots in Èwulu

From a morphological point of view, roots (see forms in (1)) are 'underived' simplex words, i.e. words that are void of affixes. According to Crystal (2008), roots are the base form of a word which cannot be further analysed without total loss of identity. Different root types in Ewulu are discussed in the following sub-Sections as follows:

3.1.1 Pronominal Roots in Èwulu

Pronominals otherwise known as pronouns are morphologically structured as root. They are indivisible into smaller morphological units as they lack any form of affix. The forms in (3) illustrate this pattern:

(3) Pronominal Roots in Ewulu

a.	mmų	ʻI'	*m-mų́
b.	anyi	'we/us'	*à-nyi
c.	iyų	ʻyou	*i-yų
d.	ųnų	'you (plural)'	*ų-nų
e.	nwa	'they'	*n-wa

As can be seen, the pronouns in (3a-e) are full-fledge roots; they cannot be parsed into stems and affixes like the case of English in (1), second column as this violates the morpheme structure condition of the lect. Any attempt to divide the morphemes in this way, as illustrated with asterisked forms in (3), will render the words meaningless. Thus the detached hypothetical units, mu'_{r} , ny'_{r} , nu'_{r} and n- are semantically empty unless the initial segments are present to make them form a whole. This evidence unequivocally predicts that the pronominals in (3) are not merely free morphemes but roots in their entirety.

3.1.2 Nominal Roots in Èwulu

Many nouns in Ewulu are roots. The nominal roots, like the pronominal roots examined in (3) cannot be decomposed into smaller units otherwise their inherent semantic property would be distorted. Nonetheless, this does not imply, as will be shown in (10) that quite a large number of Ewulu nouns cannot be decomposed into smaller units based on restrictions governing the morpheme structure conditions of nominal(isation). In (4), we present Ewulu nouns that are functionally roots with zero affix:

(4) Nominal/Noun Roots in Èwulu

a.	àfè	'cloth'	*à-fè
b.	okwų	'fire'	*ó-kwų́
с.	ofe	'soup'	*o-fe
d.	ágbe	'calabash'	*á-gbe
e.	onu	'neck'	*o-nu
f.	úkwù	'waist'	*ú-kwu
g.	eze	'tooth/teeth'	*e-ze

All the nouns in (4) are unarguably roots. This is so because the initial morpheme vowels are not prefixes, as they cannot be randomly detached from the adjoining strings. If they could, as the asterisked, ill-formed strings show, the adjoining strings would have their intrinsic meaning distorted. These kinds of nouns are quite distinct morphologically from other category of nouns that will be examined in Section 4.2.1.

3.1.3 Verbal Roots in Èwulu

Verbal roots are the most simplified words/lexemes in Ewulu in terms of the quantity of units of which they are composed. Basically, verbal roots are maximally composed of a single syllable with a consonant plus a vowel, forming a CV syllable (Utulu, 2015). Its rather simple morphological structure straightforwardly depicts verbal elements of the lect as strings with 'simple' stem morpheme like those analysed in the foregoing. The examples in (5), taken from Utulu (2015:159) illustrate this fact:

(5) Verbal Roots in Èwulu

a.	sí	'cook
b.	ŕ	'eat'
c.	bí	'live'
d.	shi	'leak'
e.	jé	'go'
f.	dé	'write'
g.	fé	'fly'
h.	ké	'tie'

3.1.4 Prepositional Roots in Èwulu

 \dot{E} wulu has relatively fewer vocabularies among the word class categorised as preposition which expresses relationship between a (pro)noun and the next word in the sentence. The few prepositions comprise principally of roots, as shown in (6):

(6) Prepositional Roots in Ewulu

a.	ime	ʻin'
b.	èzi	'outside'
с.	òkpúlū	'under'
d.	enu	'top/above'
e.	ègbà	'beside'
f.	na	'at'

Like asserted in the description or (pro) nominal and verbal roots, the initial vowels in the prepositions in (6) form part of the entire word. Detaching them from the remaining units renders the entire vocabulary meaningless. We now proceed to describe/examine the internal structure of Èwulu stems.

1. Stems in Èwulu

There are essentially two broad types of stems that define the \dot{Ewulu} word internal structure: (i) stem-plus-inflectional affix and (ii) stem-plus-derivational affix, comparable with the English forms enunciated in the second column of (1).

4.1 Èwulu Words with Stem-plus-Inflectional Affix (Inflectional Morphology)

The internal structure of stems in Èwùlù is principally composed of *stem-plus-derivational affix* (see Section 4.2 and subsequent sections), the most productive word building mechanism in Èwùlù so to speak. However, in this Section, we show a number of items generated via what we suggest to be the lesser productive word building mechanism in Èwùlù, referred to in this work as *stem-plus-inflectional affix*. Functionally, the word building mechanism depicts NUMBER, TENSE and POSSESSION in the lect, as illustrated in the following sub-Sections.

4.1.1 Èwulu Stem-plus-Inflectional Affix Signalling NUMBER

Pluralisation, a lesser productive morphological process in Ewulu is signalled by employing the stem-plus-inflectional affix via prefixation, as the forms in (7) show:

(7) Ewulu stem-plus-inflectional affix signalling **NUMBER**

	Singular		Plural	
a. b.	o-kposho o-kei	ʻgirl/woman' ʻboy/man	ì-kpòshó ì-kèi	ʻgirls/women ʻboy/men'
с.	nwa	'child'	ý v ý ny	'children'

It is not typical of \vec{E} wulu to employ inflectional affixes to mark NUMBER. The only reported cases in which number is marked in the morphology of the lect via prefixation are those exemplified in (7a & b). The form in (7c) which is a curious type of suppletion (see also the forms in (19) denotes number but lacks any form of affix. Nonetheless, one

major way Èwulu marks number is by the use of certain pronominals, e.g. ndia 'these', ndifu, 'those' with nouns. For instance, singular-plural distinction in the utterances uno ndia 'house these' "these houses" and uno ndia constant const

4.1.2 Èwulu Stem-plus-Inflectional Affix Signalling TENSE

The morphological mechanism of stem-plus-inflectional affix can signal TENSE, a highly productive morphological process that marks concept of time, as the examples in (8) indicate:

	Present		Inflectional suffix	Past		
а.	chá	'wash'	nì	chà-nị	'washed'	
b.	kwq	'grind'	ni	kwo- ni	'ground'	
с.	me	'make'	ni	me-ni	'made'	
d.	, za	'swell'	ni	za-ni	'swelled'	
e.	kú	'say'	ni	ku-ni	'said'	
f.	gbo	'vomit'	nì	gbo-ni	'vomited'	
g.	go	'sell'	ni	go-ni	'sold'	
h.	nyi	'climb'	nį	nyi-ni	'climbed'	

(8) Èwulu stem-plus-inflectional affix signalling **TENSE**

As (8) shows, past tense is marked in Ewulu by attaching low-tone inflectional suffix n_i^2 to high-toned verb root/stems. Comparatively, the n_i^2 suffix is equivalent to the English *past* tense *ed*-suffix exemplified in (1).

4.1.3 Èwulu Stem-plus-Inflectional Morpheme Signalling POSSESSION

In Ewulu a root/stem nke- 'the one of is combined with personal pronouns to signal possession synonymous with the English 's' Examples are shown in (9) as follows:

	Root/Stem		Personal pronoun		Possessive pronoun	
a.	ņke	'the one of'	mmų	'I/me'	ņke- m	'mine'
b.	ņke	'the one of'	ìyų	'you'	ņke-i	'yours'
c.	ņke	'the one of'	ų́nų̀	'you, plural'	ņké- ųnų	'yours, plural'
d.	ņkè	'the one of'	wę	'their'	ņké- wē	'theirs'
e.	ņkè	'the one of'	ànyį́	'we/us'	ņke- enyi	'ours'
f.	ņke	'the one of'	yá	'him/her'	ņke- ęyę	'his/hers'

(9) Èwulu stem-plus-inflectional morpheme signalling **POSSESSION**

So far all the examples provided in sub-Sections 4.1.1 through 4.1.3 have been the ones that reveal the internal structure of words defined by the paradigms of inflectional morphology to express number, tense and possession. In the following Section we describe the internal structure of words defined by the paradigms of derivational morphology.

4.2 Èwulu Words with Stem-plus-Derivational Affix (Nominalisation)

The internal structure of words of \vec{E} wulu is for the most part marked by a blend of stems and affixes. A subset of nouns is regularly formed from stem-plus-affix combination. The internal structure of such nouns is described in the following sub-Sections.

4.2.1 Deverbal Nominalisation (Cognate Noun)

A close observation of the internal structure of certain words in Ewulu would confirm that the words are simply nouns formed from (action) verbs via a process called deverbal nominalisation (Comrie and Thompson, 1985; Anyanwu and Omego, 2015). Some of such nouns of verbal origin, also referred to as 'cognate nouns' are presented in (10) as follows:

	Verb	root	Nominal prefix- plus-verb stem	Noun (0	Cognate noun)
a.	bų	'sing'	é-bù	ébù	'song'
b.	ŕ ri	'eat'	ņ-ri	ņri	'food'
c.	chá	'wash'	n-chà	ņchà	'soap'
d.	lų́	'work'	q-lų	ólų	'work/job'
e.	gbá	'kick'	m-gba	mgba	'wresting'
f.	kwu	'say'	o-kwu	ókwú	'word/utterance'
g.	sì	'smell'	ń-sì	ņsi	'stench/smell'
h.	chá	'lighten'	ų-chá	ùchá	'lightness'
i.	kwa	'cry'	e-kwa	ękwa	'cry'
j.	koʻ	'dry'	ų-ko	ųko	'scarcity'

(10) Deverbal nominalisation via prefix-plus-verb stem in Ewulu

At first glance, one might be tempted to assume that the noun forms (in the last column) in (10) have the same morphological structure with the ones illustrated in (4). They are totally not the same; the ones in (4) are strictly roots with zero affix while the ones in (10) (consider the forms in bold print) are a blend of prefix plus verb stem. The nominal prefix-plus-verb stem as indicated by a dash separating the two units is strong evidence that validates the morphological difference between the roots in (4) and the stems in (10).

4.2.2 Deverbal Nominalisation (Agentive Noun)

In the category of deverbal nominalisation is agentive noun, i.e. a sub-set of nouns that denote performer of an action, as in the English words, *mak-er, wash-er, operat-or, conduct-or* etc., Ewulu agentive nouns are simply derived by employing circumfixational process, in which both the prefix and suffix, as Utulu's (2018) examples show, are attached to simple verbal strings, as the forms in (11) show:

Verb root		ot	Nominal prefix- plus-verb stem- plus-suffix	Agentive noun		
a.	gbú	'kill'	ò-gbu-ù	ògbuu	'killer'	
b.	ché	'wait'	ò-ché-e	ochee	'waiter'	
c.	ŕ	'eat'	ò-ri-i	orii	'eater'	
d.	gba	'shoot'	ò-gbá-à	ogbaa	'shooter'	
e.	śi Si	'cook'	ò-si-i	osii	'cooker'	
f.	lé	'sell'	o-le-e	olee	'seller'	
g.	gu	'dig'	ò-gú-ù	oguu	'digger'	
h.	kų	'sow'	ò-kų́-ų	okųų	'sower'	

(11) Deverbal Nominalisation (Agentive Noun) in Èwulu (Utulu, 2018)

4.3 Èwulu Words with Stem-plus-Derivational Affix (Infinitives and Participles)

Aside nouns, some subset of verbs are formed from stem-plus-affix combination. Èwulu infinitive verbs and participial verbs are derived by this singular productive morphological process, as discussed in the following sub-Sections.

4.3.1 Infinitive Verbs (to-Infinitive)

The internal structure of infinitive verbs is that which comprises a prefix i - (or i) plus a simple verb root. The high-toned infinitive marker is equivalent to the English string 'to' which when attached to verbs yields infinitival strings: nouns, adjectives or adverbs. For example, the strings, 'to go', 'to push', 'to beat', etc. are infinitives. The verb roots taken from (11) are used in (12) to demonstrate the formation of 'to-infinitive', typically functional as noun in Ewulu, as in 'Ncho-nì i-gbu anu' I want to slaughter animal thus:

	Verb ro	oot	Infinitive prefix-plus- verb root/stem	Infinitive Verb	
a.	gbu	'kill'	í-gbù	ígbu	'to kill'
b.	ché	'wait'	í-chè	iche	'to wait'
c.	ŕi	'eat'	i-rì	() 1 1 1	'to eat'
d.	gba	'shoot'	í-gbà	igba	'to shoot'
e.	śi	'cook'	i-sì	151	'to cook'
f.	lé	'sell'	í-le	ilè	'to sell'
g.	gú	'dig'	í-gu	ígu	'to dig'

(12) Infinitive Verbs (to-Infinitive) in Èwulu

4.3.2 Participial Verbs

Èwulu participial verbs, the equivalents of the English verb + 'ing' combination as in 'war-ring' in the example, '*The warring Lords surrendered their weapons*' are formed by attaching prefix \dot{e} - or \dot{a} - to simple verb roots, as the forms in (13) show:

(13) Participial Verbs in Èwulu

	Verb root		Participial prefix-plus- verb root/stem	Participial Verb		
a.	gbu	'kill'	è-gbu	ègbu	'killing'	
b.	ché	'wait'	è-ché	èché	'waiting'	
c.	ŕ	'eat'	è-ri	èń	'eating'	
d.	gba	'shoot'	à-gba	àgbá	'shooting'	
e.	sí	'cook'	è-si	esi	'cooking'	
f.	lé	'sell'	è-lé	èlé	'selling'	
g.	ģú	'dig'	è-gu	ègú	'digging'	

As the examples show, the rule of vowel harmony (see discussions in Section 2; see also Utulu in preparation) determines when participial

maker \hat{e} - or \hat{a} - is assigned in the derivational process. If the verb root vowel is [+ATR], \hat{e} - is selected, whereas \hat{a} - is chosen if the verb root is [-ATR].

4.4 The Negation Marker/Morpheme, Ne or Na in Èwulu

The build-up morphological strategy of negation in Ewulu is straightforward: verb roots are simply conflated with the affix $n\dot{q}$ - or $n\dot{a}$ to derive negation, subject to the rule of vowel harmony, as the forms in (14) show:

	Verb	root	Stem-plus- negation suffix	Negatio	n	Negation ser	ntenœ
a.	gbu	'kill'	gbu-nę	gbúnę	'not kill'	Ó-gbùnệ	'S/he did not kill'
b.	ché	'wait'	ché-nę	chénę	'not wait'	Ó-chènệ	'S/he did not wait'
C.	ń	'eat'	rí-nę	rinę	'not eat'	Ó-nnệ	'S/he did not eat'
d.	gbá	'shoot'	gbá-nà	gbána	ʻnot shoot'	Ó-gbànà	'S/he did not shoot'
e.	śi	'cook'	si-nę	sinę	ʻnot cook'	Í-sinę	'You did not cook'
f.	lé	'sell'	lé-nę	lénę	'not sell'	Í-lènè	'You did not sell'
g.	ģú	'dig'	gu-ne	gunę	'not dig'	Í-gune	'You did not dig'
h.	kų	'sow'	kų́-nà	kųna	'not sow'	Nwa-kuna	'They did not sow'

(14) The Negation Morpheme, Ne or Na in Èwulu

4.5 The Imperative Morpheme

In language, the expression of an order is relayed by the use of verbal imperative, as the English 'Go home!', 'Leave now!' etc. where the verbs 'go' and 'leave' are in the imperative. Èwùlù derives verbal imperatives (see bold-faced forms in (15) by attaching a suffixal morpheme which is a copy of the vowel element of the root verb to the verb root itself. This simple derivational morphological process is illustrated thus:

(15) The Imperative Morpheme in Èwulu

	Verb	root	Stem-plus- imperative suffix	Impera	tive	Imperative o	onstruction
a.	zà	'sweep'	za-á	zaa	'sweep!'	za-a ųno	'Sweep the house!'
b.	gu	'swim	gu-ú	guu	'swim!'	gu-u min	'Swim in the river!'
c.	zì	'send'	zì-í	211 X	'send!'	zi-1 0-zi	'Send message!'
d.	né	'look'	ne-é	nee	'look!'	ne-e-m	'Look at me!'
e.	bų	'sing'	bų-ú	bųú	'sing!'	bų-u-ę-bų	'Sing a song!'
f.	go	'worship'	gq-q	goo	'worship!'	go-o-mmo	'Worship idol!'
g.	mų	'learn'	mų̀-ų́	mųų́	'learn!'	mų-ų- ękwųkwo	'Be studious!'

4.6 The Perfective Morpheme

Perfective morphemes are morphological or grammatical strings that express actions completed in the present, past or future. Words that signal this aspect in the grammar in English are *has*, *have* or *had* used in sentences like *He has...'*, *They have ...'*, *I had...'* respectively. The perfective marker in Èwulu is -go or -go attached as a suffix to verb roots. The forms in (16) exemplify the structure of perfective morpheme in Èwulu, taking some of the verb roots described in the foregoing:

(16) The Perfective Morpheme, $G \circ$ or $G \circ$ in Èwulu

	Verb	root	Stem-plus- perfective suffix	Perfectiv	е	Perfective	construction
a.	gbu	'kill'	gbu-go	gbugo	'has killed'	Ó-gbu-go	'S/he has killed'
b.	ń	'eat'	ri-go	rigo	'has eaten'	Ó-n-go	'S/he has eaten'
с.	gbá	'shoot'	gba-go	gbago	'has shot'	Q-gba-go	'S/he has shot'
d.	śi	'œok'	si-go	sigo	'has cooked'	Ó-si-go	'S/he has cooked'
e.	lé	'sell'	lé-go	légó	'has sold'	Ó-lé-gó	'S/he has sold'
f.	gú	'dig'	ý gu-go	gugo	'has dug'	Ó-gu-go	'S/he has dug'
g.	kų́	'sow'	kų-go	kųgo	'has sowed'	Ó-kų-go	'S/he has sowed'

The alternative use of go'- or go', as Utulu (in prep.) shows, is hinged on the inherent ATR feature of the dominant vowel element of the root verb. For want of space, elliptical symbol (...) used in the perfective constructions are intended to show the slot of noun complements.

4.7 Infixational/Interfixational Morphological Process

An additional productive derivational affix that needs to be considered in this work is infix, or alternatively interfix because it, like other affixes, defines the internal structure of words in Ewulu. Take for instance the forms in (17):

(17) Verbal derivative via infixation in Èwulu

	Verł	o root	<i>m</i> -Infixation	Adjective	
a. b. c. d.	ke n si nu	'tie' 'eat' 'cook' 'push'	e-ke- m- e-ké e-ri- m- e- rí e-si- m -e-sí e-nu- m -e-nú	ekemeké erimerí esimesi enumenu	'tieable' 'eatable' 'cookable' 'pushable'
e.	ye	'fry'	e-ye- m -e-ye	eyemeye	'fryable'

The infix *m*- is inserted in between prefixed reduplicated verbal stems to derive adjectives of the type equivalent to the English verbal derivatives with *able*- suffix, e.g. *like-able*, *work-able*, *note-able* etc. Specifically, the verbal derivatives in (17) and others with the same structural cause function grammatically to modify Ewulu nominals when used in sentences.

4.8 Subtraction

Subtraction is a morphological process that involves the removal or deletion of one or more phonological segments from roots or stems (Matthews, 1991). The operation of the process shows up on verbal reduplicants, where its consonant is dropped, as the forms in the last column in (18), some taken from Utulu (2014) show:

(18) Subtraction in Ewulu

	Verb root		Reduplication		Subtraction
a.	lé	'sell'	ò-li-le	'selling'	o-i-le
b.	yé	'fry'	o-yi-yé	'frying'	o-i-ye
c.	śi	'cook'	O- S 1-S1	'cooking'	O-1-S1
d.	gba	'shoot'	o- gb i-gba	'shooting'	o-i-gba
e.	zų	'train'	ϙ- z ų-zų	'training'	oʻ-ų-zų
f.	ké	'tie'	o-ki-ke	'tieing'	ò-i-ké
g.	ŕ	'eat'	o- r i-ri	'eating'	0-1- 1 1
h.	'nú	'push'	o- n u-nu	'pushing'	o-u-nu
i.	mù	'learn'	``,- m ų́-mų́	'learning'	o¦-ų́-mų́
j.	kợ	'dry'	ò- k i-ko	'drying'	ò-i-kọ

As the reduplicated forms in (18) show, verb stems have their consonants (in bold-faced print) removed with no distortion in the semantic information relayed. Subtraction of this sort crucially applies in casual, fast speech in the lect to ease articulation.

4.9 Suppletion

Though Èwùlù does not have productive suppletive forms like a language such as English, a number of lexemes in the lect exists that require some scholarly attention as they constitute a sub-type of lexemes of the lect, at least. Suppletion is a notion of morphology that explains root morphemes lacking regular morphological and phonological correspondence with other root morphemes within the paradigm. The classical English example (see Crystal, 2008) are *go-, went-; mouse- mice-*suppletives, in which the former strings are morpho-phonologically unrelated to their respective latter strings, but only related semantically/grammatically, as they relay concept of 'action' and 'tense'. The Èwùlù forms in (19) are a sort of suppletives:

(19) Suppletion in Ewulu

	Noun root		Noun root		
a.	nwa	ʻchild'	ųmų	'children'	
b.	nwunyè	ʻwife'	inyemė	'wives'	
c.	ewu	ʻgoat'	mkpi	'goat'	
d.	okwukwu	ʻfowl'	okpa	'fowl'	

As can be seen, the noun roots on the left and right in (19) have the same meaning. However, both forms lack morphological connection as well as phonological correspondence. The first-two examples show number distinction (singular vs. plural) while the last-two show gender distinction (male vs. female).

4.10 Clipping

Clipping is a morphological process of 'reduction' of longer morphological strings, making them shorter, though the inherent meaning of the longer strings is preserved in the reduced, clipped strings. In Èwulu clipping is highly productive, particularly in the derivation of native forenames. The strategy required in deriving clipped forms in Èwulu is the removal of some stem (in parenthesis) from the larger string via derivational morphological process, as forms in (20) show:

(20) Clipping in Èwulu

	Prefix	Pro-nominal	Stem	Stem	(Prefix)-Stem	Stem	Clipped form
a.	à		kpų 'mould'	(kpq́) 'dry'	ýkwý 'leg'		ákpykwy 'shoe'
b.			Chi 'God'	(úkwú) 'big'	ma 'know'		Chimà 'forename'
C.			nke 'the one of'	(mmų́) 'me'			Nkem 'mine'

	Prefix	Pro-nominal	Stem	Stem	(Prefix)-Stem	Stem	Clipped form
d.		o It'	di 'be'	(mmų́) 'me'	égwu 'fright'		Òdimégwu 'forename'
e.			Chi 'God'	(úkwú) 'big'	bų 'be'	ų́zo 'way'	Chíbų́zó 'forename
f.			(Chí) 'God'	(úkwú) 'big'	è-mé 'has-done'	kę́ 'well'	'Èmékę' 'forename'

4.11 Loanwords

Loanwords shed some light on the internal structure of words in $\dot{E}wulu$. Words borrowed from English are subjected to modifications that are governed by the morpheme structure conditions of $\dot{E}wulu$. In (21) we illustrate the adaptation process as follows:

(21) Loanwords in Èwulu

	0	Morphophonological parsing	Èwùlù loanword morphophonological parsing	Output forms
a.	glad	glad	gà.la.a.d-i	galaadi
b.	bicycle	bi <u>cy.cle</u>	ba.i <u>si.ko.l</u> -o	bajsikolo
c.	motorcycle	mo.torcy.cle	mmo.to <u>sa.i.ko.l</u> -o	mmotosaikolo
d.	bible	bi.ble	ba.i.bu.l-u	baibulu
e.	motor	mo.tor	mmo.to	mmoto
f.	hotel	ho.tel	shq.te.e.l-u	shoteelu
g.	police	po.lice	mpo.li.i.s-i	mpoliisi

Conclusion

This paper has revealed the minimal morphological forms in Ewulu and has shown how they are systematically structured via inflectional and derivational morphological processes in the formation of words. The very salient minimal forms that were examined in this work include but not limited to the following: nominal roots, verbal roots, deverbal nominalisation, infinitives, perfectives and loanwords. Throughout the description of the internal structure of Ewulu words, the current paper, implicitly 'showcasing' the lect as an agglutinating language, showed that its creative morphological system is that which contains a linear sequence of morphs. In particular, it was shown that verb roots are extensively morphologised via affixation processes for the sole aim of creating new, additional vocabularies of different word classes to characterise the world view and culture of the Ewulu people. Significantly, the study has contributed to current research efforts geared toward a description of the linguistic features of small minority indigenous languages/dialects spoken in Nigeria.

Note:

1. Èwulu is an Igboid lect spoken in the northern region of Delta State, south-south, Nigeria (see a brief discussion of its history and demography in Section 2).

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