

On Efik Prefixing Morphology

Eyo Mensah

Abstract

Prefixation is a grammatical device that involves the attachment of a bound morpheme to the left of a root element or stem. It functions to signal certain grammatical relationships involving categories like tense, negation, person, number, and aspect. It can also trigger off the creation of new words from existing ones. The focus of this paper is to analyse the forms and structure of Efik prefixes in relation to the different phonological and morphosyntactic operations they can signal in the language. The paper also examines the various word formation strategies involving prefixation in the language. The basic assumption, however, is that the structure of Efik prefixes varies according to agreement, and is determined by the principle of vowel harmony. The study discovers that Efik prefixes have systematic and rule-governed structures and that certain conditions, such as the phonology of the stem, the stem's lexical category and the semantic value of prefixes stipulate their position and contribute to the identification and overall meaning of the whole word.

Keywords: Efik, Morphology, Prefixation, Phonology, Language.

Introduction

Efik is the language of the Efik people who inhabit the coastal areas of the Cross River comprising Calabar South, Akpabuyo, Odukpani, Calabar

Municipality and Bakassi Local Government Areas of Cross River State, Nigeria. The language has been variously classified under the Niger-Congo family of the Niger-Kordofanian Phylum (Greenberg, 1963). Faracías (1989) classifies it under the Lower-Cross sub-group of the Delta-Cross family which is an off shoot of the enlarged Cross River that is a major constitution of the Benue-Congo sub-family. Efik is a Lower-Cross language which together with the Upper-Cross group of languages constitutes the Delta-Cross family, which is an immediate sub-branch of the enlarged Cross River group of languages which is an important sub-family of the Niger-Congo family.

An aspect of the morphology of a particular language is a set of rules with dual functions. First, these rules are responsible for word formation or the creation of new words, and they represent the speakers' unconscious knowledge of the internal structure of the existing words in the language (O'Grady, Debrovolsky & Aronott, 1989). These words are not the smallest segment of meaning in a language rather, it is the morpheme. This is not to say that affixes are words. They are not words but are components of words that add new meaning to the existing words. They are accounted for within the contexts of word creation and in expressing grammatical contrasts. The basic consideration in the description of a morpheme is that it must encode a meaning or trigger a grammatical relationship.

Morphemes may be free or bound. A free morpheme occurs in isolation, and may constitute a word by itself, but bound morphemes cannot convey any meaning in isolation: they need to be attached to other elements, which may be free or bound. For instance, in the English word *teachers*, *teach* is the free morpheme or the root element, while */-er/* and */-s/* are bound morphemes, which merely contribute meaning: */-er/* takes the verb *teach* and converts it to a noun, while */-s/* indicates plurality grammatically.

Bound morphemes are generally subsumed as affixes; a useful general term for the recurrent formative morphemes of words other than roots (Robins, 1989). Affixes may be classified into four categories according to the position they occupy in relation to root morphemes: prefixes, infixes, suffixes and circumfixes. Prefixes always precede the root or other element, which may be bound morphemes. In other words, they

occur to the left of the root morpheme. Infixes split the root and appear in between, that is they occur within the root morpheme. Suffixes are attached at the end of the root element. This implies that they occur to the right of the root morpheme. Circumfixes occur at both sides of the root elements. This paper is primarily concerned with prefixes, their forms, functions, and morphosyntactic properties in the Efik language. In the following analysis, we examine prefixation in the light of its role in signaling grammatical contrasts.

Prefixation in tense

The category of tense relates the time of the situation to the time of the utterance or moment of speaking about the situation (Comrie, 1976; Essien, 1990). A tripartite tense opposition exists in Efik, that is, the traditional present, past and future tenses. /má-/ and /ké-/ are past tense prefixes, /mé-/ and /Ø/ (or zero allomorph) are present tense prefixes and /yé-/ and /dí-/ are the future tense prefixes.

Using Essien's (1983) categorization of tense allomorphs in Ibibio, we represent the tense markers in Efik (a mutually intelligible language with Ibibio) as follows:

Table 1: *Efik tense allomorphs. After Essien (1990-78)*

	Tense opposition	S-type I	S-type II
(a)	Past	má-	ké-
(b)	Present	mé-	Ø
(c)	Future	yé-	dí-

Where S- type I refers to such sentences as:

- (a) a simple declarative sentence;
- (b) an affirmative sentence;
- (c) a neutral sentence;
- (d) a modally unmarked sentence and
- (e) a sentence that asks yes-no question.

And where S- type II refers to sentences like:

- (a) a negative sentence;
- (b) a modally marked sentence;
- (c) a sentence with emphasis and
- (d) an interrogative sentence that cannot take yes-no answer.

In what follows, we examine the tense opposition in Efik, using Essien's (1983) notion of S-type I and S-type II model as the basis for our analysis of tense prefixes.

Tense prefixes are usually found in association with other prefixes, particularly those indicating person, number and the root element, for instance, the past tense prefix is interwoven between the subject concord (SC) and the root constituent. These prefixes function to indicate a point in time that precedes the moment of speaking. As we have seen in Table 1, two types of prefixes, /má-/ and /ké-/ are used to mark the past tense in Efik. /Má-/ corresponds to Essien's Sentence-type 1. In indicating the past tense, series of prefixes concatenate to be associated with the root of the verb:

- 1(a). Bassey á má- á- diá údiá - 'Bassey ate food'
3SG PAST 3SG eat food

Bassey he past he eat food

- (b) Á má- á- diá ú-diá - 'He ate food'
3SG PAST 3SG eat food
He past he eat food

In 1, the subject concord /á-/ , the past tense prefix /má-/ and the subject concord /á- / are affixes which are linked to the verb root. These subject concord markers clearly indicate the third person singular (3SG). The occurrence of triple subjects in 1 (the NP and two subject concord prefixes) is an important characterization of Efik syntax. Langacker (1972) calls this kind of phenomenon *sentence trapping*, which is merely required by the syntax of the language. Kari (2003) has identified a form noun like Bassey in 1(a) as the emphasized subject. In other words, it can occur in a sentence only when emphasis is implied or the identity of the subject is required. The two respective subject concords /á-/ in 1(a) and (b) are the

unemphasised subjects. They are obligatory constituents of the sentences, and whose presence can render the emphasized subject like *bassey* in 1(a) redundant. The use of the subject concord as the subject of the sentence in 1(b), which is covert is possible only if the notion of background knowledge has already been established. Pragmatically speaking, the addressee must already have information about the status of the subject, which is overt. In addition to this, the personal subject prefix also marks the relationship between number, person and nominative case assignment.

Observe the harmonic relationship between the vowels of these prefixes with the vowel of the root verb. In 1, /*má-*/ occurs as a prefix and the subject concord vowel influences it to copy all its features. This takes place in all persons except the first person singular, which requires a syllabic nasal, which is homorganic with the following consonant. We shall make this point more explicit in our subsequent discussion of the category of person.

In contrast, the /*ké-*/ allomorph of the past tense morpheme occurs in type II sentence category. For instance, if we negate the simple declarative sentence in 1, the output will be 2:

2(a) *Bassey í kí- diá -há ù-diá* - 'Bassey did not eat food'

3SG PAST eat Neg food

Bassey he past eat not food

(b) *Í kí- diá -há ùdiá* - 'He did not eat food'

3SG PAST eat Neg food

he past eat not food

The /*ké-*/ prefix shows that the time of the situation and the time of the utterance are not simultaneous, hence indicating an imperfect correlation between the tense prefix and the time reference it describes (Essien, 1983; Radford, 1999). In 2, the /*ma-*/ past tense prefix cannot be used again because the sentence is negated. A different form of tense prefix /*kí-*/ is introduced to account for the phenomenon of negation. This is a case of syntactic conditioning of allomorphs. Observe that the vowel of /*ké-*/ prefix harmonizes with the SC prefix which becomes obligatorily /*kí-*/ in the negative sentence in 3. Generally, the vowel of the SC determines the

harmony in all persons except the first person singular, where the verb root determines the harmony as we can see in (a) and (b) respectively:

3(a) Ñ- ké- dép -ké - 'I did not buy (it)'

1SG PRES buy Neg

You past buy not

(b) Ñ- ké- kéré -ké ntr - 'I did not think so'

1SG PAST think Neg Adv

I past think not so

There are two allomorphs of the present tense morpheme in Efik. These are /mé-/ and /Ø/. The use of mé- parallels the use of /má-/ past tense prefix, in the sense that every kind of sentence in the former can be used, the latter can equally be applied. In other words, they are distributionally equivalent. /mé-/ occurs in type I sentence category. The /mé-/ present tense prefix indicates that the action or event has taken place concurrently with the moment of speaking, hence, is of present relevance:

4. (a) M- mé- kémé ñ- dí- nám - 'I can do it'

1SG PRES Aux 1SG PRES do

I can I do

(b) M- mé- y - 'I am pretty'

1SG PRES pretty

I Pretty

The use of /mé-/ in Efik is similar to the way sentences with *have/has* present tense are understood in English (Essien, 1983). Observe the influence of the vowel of the root morpheme on the vowels of the present tense prefix. The use of /Ø/ present tense allomorph is quite different structurally from /mé-/. It is a null morpheme, or what Spencer (1991:20) calls a zero affixation, where the morpheme responsible for marking the tense is clearly a ghostly one. It is applicable to the type II sentence category. If we convert the examples in 3 into negative constructions, we will have 6:

5. (a) N- kémé -ké ñ- dí- nám - 'I cannot do it'

1SG Aux Neg 1SG PRES do

I can not I do

(b) N- y -hé - 'I am not pretty'

1SG pretty Neg

I pretty not

In 5, we have observed that the /mé-/ present tense prefix has given way to a null affixation process. In other words, there is complete absence of a tense prefix to indicate that the sentences have present relevance. Observe the different forms of the negative suffixes. In Efik, the phenomenon of NEG is syllable driven; a one-syllable root takes the suffix /-hv/ as in 5(b), while two or more syllable roots take the suffix /-ké/ as in 5(a) and (b). Also observe the change in the personal concord from /m-/ in 4(a) to /n-/ in (b). The motivation for this change is basically phonological, given the effect of the following consonant. N-y is a possible cluster in Efik, while m-y is not attestable in the language. In Efik, adjectives exhibit similar syntactic behaviour as verbs as they can manifest concord with the subject of the sentence. They can also be inflected for tense and negation (as well as other categories) as we can see in 4(b) and 5(b). The use of /Ø/ in the imperative order does not require the SC when it occurs with the singular person, but does so if it occurs with the plural person as shown in examples 6(a) and (b) respectively:

6 (a) (Àfò) dí mí - 'You (sg) come here'

2SG come here

You come here

(b) (Mbùfò) é- dí mí - 'You (pl) come here'

2PL 2PL come here

You you come here

In 6(a) and (b), the subject pronouns (enclosed in parenthesis) are optional elements. This implies that the sentences could still be complete and meaningful without them, given the agreement between the verb and the noun in respect of some grammatical relationships.

There are two future tense prefixes in Efik; /yé-/ and /dí-/. While the former occurs with the type I sentence category, the latter can only be used with the type II sentence category:

- 7 (a) (Àmì) ñ yé- yéné ókúk - 'I will have money'
 1SG 1SG FUT have money
 I I will have money

- (b) (Àmì) ñ di yéné -ké ókúk- 'I will not have money'
 1SG 1SG FUT have Neg money
 I I will need not money

In this case, the future tense prefix is flanked by the SC prefix, and the verb root *yéné* 'have'. The subject pronoun *Àmì* 'I' is an optional element. The change from /ye-/ to /di-/ reflects the change from a simple declarative sentence to a negative one.

Prefixation in negation

The phenomenon of negation has been described by Mensah (2001: 61) as when a proposition in an affirmative statement or command is reversed and the expression acquires a contrary sense with the introduction of corresponding negative affixes and phonological processes. In this way, the structure loses its positive values and is then said to be negated. In Efik, this process is basically inflectional, in which case it involves prefixation and suffixation. We focus primarily on prefixation in the following analysis. There are two types of preverbal negative prefixes in Efik: /kû-/ and /dí-/. The /kû-/ prefix which carries a consistent falling tone is attached to the root of the verb in negating an imperative construction:

- 8 (a) (Àfò) kû- nènì - '(You) do not argue'
 2SG Neg argue
 You not argue
- (b) (Àfò) kû- nyàm - '(You) do not sell'
 2SG Neg sell
 You not sell

- (c) (Àfò) kû- fèhé - '(You) do not run'
 2SG Neg run
 You not run

It is generally assumed that imperative constructions have overt subjects in the surface structure which are represented by the 2SG. This justifies why its equivalent form in Efik afo is enclosed in a bracket to indicate that it is an optional element of the sentence. Here the /kû/ prefix precedes the verb root and its characteristic falling tone is capable of influencing the inherent tone of the verb root. This is applicable if the root is either CV or CVC, where its inherent low or high tone will be changed to a rising one. This evidence shows that the syllable structure is also relevant in marking negation in Efik:

- 9 (a) (Afo) nó mí ùsàn - '(You) give me a plate'
 2SG give pro plate
 You give me plate

- (b) (Afo) kû- nO mí ùsàn - '(You) don't give me a plate'
 2SG Neg give pro plate
 You don't give me plate

- 10 (a) (Afo) tèm biá ìkpòñ - '(You) cook yam only'
 2SG cook yam only
 You Cook yam only

- (b) (Afo) kû-tèm biá ìkpòñ - '(Afo) don't cook yam only'
 2SG Neg cook yam only
 You don't cook yam only

Another instance of pre-verbal negation in Efik is the use of the prefix /dv-/, which is mostly associated with imperative constructions. The vowel of this prefixing morpheme may assimilate the features of the vowel of the preceding SC prefix.

- 11(a) (Àfò) mùm ènyé í- dí- fèhé - '(You) hold him so that he
 may not run'

2SG hold Pro 3SG Neg run
You hold him he not run

- (b) (Afo) Ku- nam u- du- tua - 'Don't do so you may not cry'
2SG Neg do 2SG Neg cry
Don't do you not cry

The vowel of the /dí-/ prefix usually copies the features of the vowel of the subject concord prefix. The /dv-/ Neg prefix can equally take the /kû/ Neg prefix, thus resulting in double negation, which is a syntactic requirement of conditional constructions in Efik:

- (c) (Àfò) kû-mùm ènyé (mmán) í- dí-féhé - '(You) don't hold
him so that he
may not run'.

2SG Neg hold 3SG COMP 3SG Neg run
You don't hold he he not run

- (d) (Àfò) kû-nám (mmán) ú-dú-túa - '(You) don't do (it) so that
you may not cry'.

2SG Neg do COMP 2SG Neg cry
You don't do you not cry

Since Neg prefixes can only be attached to verbs or adjectives in Efik, one implication of double negation in Efik is that it involves verb serialization, in which case the two verbs denote a single action rather than a series of actions. These verbs are usually conjoined by the conditional marker *mmán*, which is also an optional constituent of the sentence. This means that the sentence can still be complete and grammatical without it.

Prefixation in person and number

According to Mensah (2007), the category of person is a concord category between a noun or a pronoun and the verb form. In Efik, every subject noun or pronoun has to agree in number and in person with the verb, which forms the predicate of the sentence. Prefixes are used to establish such concords:

- 12(a) Efioñ á-nám útóm - 'Effiong is working'
 3SG do work
 Effiong he do work

- (b)Efioñ yè Afioñ é-nám útóm - 'Effiong and Affiong
 are working'
 Conj. 3SC do working
 Effiong and Affiong they do work

In 12(a) the SC prefix /á-/ is used to indicate number and person, in this case a singular person, while in (b), /é-/ is used to indicate plural person. In other words, number and person in Efik, apart from sharing the same position slots, also share the same morphemic representations (Mensah (2007). The personal marker prefix can also function as the subject of the sentence, if the referential value of the subject is already known the emphasized subject noun in 12 can be given the status of SC in 13:

- 13(a) Á - nám útóm - 'He (Effiong) is working'
 3SG do work
 S/he do work

- (b) É - nám útóm - 'They (Effiong and Affiong) are working'
 3PL do work
 They do work

/Á-/ and /É-/ respectively serve as the subjects of the sentences in 13(a) and (b). It follows therefore that if a speaker has background knowledge about the subject of the sentence, the concord, which represents number and person, can easily substitute for the subject as the case form. This is what Allerton (1979: 139) calls "binary opposition" or binary specification of syntactic features. The case form depends on the syntactic relationship with other parts of the sentence.

The first person singular SC prefix /n-/ has three allomorphs with consistent high tones; /n-/ , /ñ-/ and /m-/ , and which are determined by the phonological environment:

14. (a) Ñ- diá ùdiá - 'I am eating'
 1SG eat food
 I eat food
- (b) Ñ- ká ùruá - 'I am going to the market'
 1SG go market
 I go market
- (c) M- br ból - 'I am playing football'
 1SG play ball
 I play football

The alveolar nasal selects an alveolar consonant, the velar nasal takes a velar consonant and the bilabial nasal selects a bilabial consonant in the neighbouring environments 14 (a), (b) and (c) respectively. In other words, they are phonologically conditioned and occur in complementary distribution. Syntactically, they function as the subject of the sentence representing the singular person. We can represent the Efik singular person allomorphs in the diagram in Fig. 1:

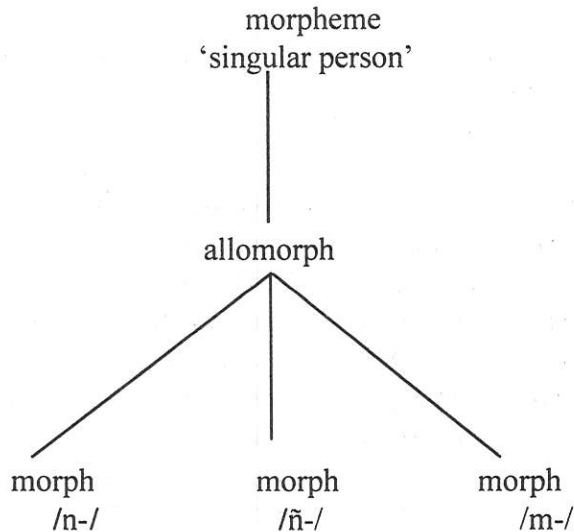


Fig. 1 Efik singular person allomorphs.

The contrast in meaning between the second and the third persons singular and plural is brought about by the distinction in tones of the subject concord prefixes. While the second person singular and plural carry inherent low tones, the third person singular and plural bear high tones. This evidence reveals that tones can bring about grammatical contrast in Efik as we can see in 15 and 16:

15(a) À- diá ù-diá - 'You (sg) are eating'
 2SG eat food
 You eat food

(b) Á- diá ù-diá - 'He/ she is eating'
 3SG eat food
 He/she eat food

16(a) È- diá ù-diá - 'You (pl) are eating'
 3PL eat food
 You eat food

(b) É- diá ù-diá - 'They are eating'
 3PL eat food
 They eat food

We have observed that in addition to marking the contrast in person and number, Sc prefixes also have nominative case property by virtue of functioning as the subject of the sentence.

Prefixation in agglutination

Agglutination is a morphological process that involves a word in a language containing separate morphemes or what Spencer (1991:224) refers to as long polymorphic words in which each morpheme corresponds to a single lexical meaning or grammatical function. In Efik, these morphemes which are all prefixes form a collocation with a root element to make up larger

words or sentences. Essien (1990: 141) submits that verbs may consist of just a root and one or more affixes indicating concord of number, tense, aspect, mood and negation and in such a way that a whole sentence can consist of just a word:

17. É- kpé- dí- mmá- ñ- sí- fiòk- 'Had I been knowing'
SC Mod PAST Aux SC ASP V

Where the prefix /É-/ represents the SC, /kpé-/ the modal marker, and /dí-/ is the tense marker. The prefix /mmá-/ is the auxiliary element, and /ñ-/ is a subject concord. Aspect is indicated by the prefix /sí-/ and the root of the verb is *fiòk* 'know'. This state of affairs reveals a fusion where different prefixes exhibit different functions in a string in such a way that a single word can encode a meaning, which would require a fairly elaborate sentence. It also shows that all the grammatical categories in Efik can be marked by prefixes. Further examples of agglutinative constructions include:

- 18(a) Ú- kú- kpú- sú- nám -ke - 'You (sg) wouldn't
have been doing it'

2SG PAST MOD ASP V Neg

- (b) Ñ- ké- kémé -ké - 'I could not do it'
1SG PAST Aux Neg

Where the sentences are built up by strings of affixes. Apart from the verbs *nám* 'do' and *kémé* 'can' in 18 (a) and (b) respectively, all other components of the sentences are affixes which express grammatical relationships. Observe that the vowel of the SC determines the harmony in all persons except the first person singular, where the vowel of the verb root influences the vowels of the affixes. Agglutination is a Bantu characteristic that is attestable in Efik.

Prefixation in derivation

So far, we have been concerned with the inflectional functions of prefixes, where their forms and structures vary in order to bring about grammatical

contrasts. In what follows, we examine prefixation in derivation, that is, where it has the tendency to create new words from existing ones, hence change its formal class. In Efik, nouns can be derived from verbs through prefixation. Under this kind of nominalization, we have two kinds, irregular and regular forms as we can see in 19 and 20 respectively:

- | | | | |
|-----|--------------|-----------|----------------------|
| 19. | verbs | | derived nouns |
| (a) | dé | 'sleep' | í-dáp 'a sleep' |
| (b) | tíhí | 'quarrel' | ù-tík 'a quarrel' |
| (c) | dábá | 'dream' | ñ-dáp 'a dream' |
| (d) | nwáná | 'fight' | é-nwán 'a fight' |
| (e) | sáñá | 'walk' | í-sañ 'a walk' |
-
- | | | | |
|-----|--------------|---------|----------------------|
| 20. | verbs | | derived nouns |
| (a) | sèm | 'speak' | ù-sèm 'language' |
| (b) | díá | 'eat' | ú - díá 'food' |
| (c) | wèd | 'write' | ñ- wèd 'book' |
| (d) | kpá | 'die' | m- kpá 'death' |
| (e) | kwó | 'sing' | í- kwó 'song' |
| (f) | br | 'play' | m- br 'masquarade' |

The process of nominalization in Efik transcends ordinary prefixation. The main formal characteristic is distinguishing the two stems in 19 that the primary stem selects CV(CV) structure, while the derived stem selects VCVC pattern. The primary stem begins with consonants and ends with vowels, while the derived stem begins with prefixes, which are vowels (or syllabic nasal in the case of 19(c)) and ends with consonants. The introduction of the prefixes to the primary stem triggers the loss of the coda vowel for the derivation to take place. In (a), the change from dé 'í-dáp involves in addition to prefixation, the frication of syllable coda and vowel change from é'!á. These are clearly irregular pattern of nominalization. 19(b) involves a change from a glottal consonant to a velar consonant h'!k. The motivation for this change can be justified with reference to historical sound change in the language. In (c), a voiced bilabial stop gives way to its voiceless counterpart, b'!p, in the derivation. This is because the phonotactics of Efik do not permit the voiced bilabial stop in

word final positions in the language. For instance, in (d) and (e), *nwana'*!enwan and *sáñá'*! í-sàñ, we observe that apart from the prefixation of the vowel in the output of the derivation.

Under the regular kind of derivation in 20, nominalization is a dominant process. In which case, a verb is converted into a noun. From here, we can propose that prefixes such as /ú-/ , /n-/ , /m-/ and /í-/ are derivational morphemes. These forms of nouns with verb roots and the prefixes as their constituents are called deverbal nominal (Anagbogu, 2003: 704).

Agentive nominal can also be derived from verbs by prefixing the form /àndí-/ to the verb root. The use of /àndí-/ is a regular pattern of nominalization, which personalizes the action of the verb:

21. verb (X)		derived nouns (doer of X)	
kpép	'teach'	àndí-kpép	'teacher'
wèd	'write'	àndí-wèd	'writer'
wòt	'kill'	àndí-wòt	'killer'
kwó	'sing'	àndí-kwó	'singer'
wàt	'drive'	àndí-wàt	'driver'

The use of the prefix /àndí-/ is equivalent semantically to the way in which the /-er/ suffix is used in English, which identifies the doer of the action of the verb.

The /àndí-/ prefix can be contrasted with the prefix /á-/ , which performs the same range of functions:

21(a)	verb (X)	derived noun (doer of X)	
má	'love'	á-má	'lover'
súá	'hate'	á-suá	'hater'
kán	'win'	á-kán	'winner'
nám	'do'	á-nám	'doer'
kára	'rule'	á-kára	'ruler'

The use of /á-/ prefix to form agentive nouns is potentially limited because very few verbs can be converted in this way. The verb which carries the /á-/ prefix can equally take /àndí-/ and convey the same sense, but not

vice-versa. This, however, implies that the /àndí-/ prefix is more productive in Efik:

(b)	verb (X)	derived noun (doer of X)
	má 'love'	àndí-má 'lover'
	suá 'hate'	àndí-suá 'hater'
	kán 'win'	àndí-kán 'winner'
	nám 'do'	àndí-nám 'doer'
	kará 'rule'	àndí-kará 'ruler'

The only difference being that the use of àndí- is emphatic and definite while the use of á- is generalized and indefinite. Another prefix ndí- can take all forms of verbs the a- and àndí- prefixes can be attached to. It functions as the infinitive or infinitive phrase in English, where the root of the verb is preceded by *to*:

(c)	verb (X)	derived noun (doer of X)
	má 'love'	ndí-má 'to love'
	suá 'hate'	ndí-suá 'to hate'
	kán 'win'	ndí-kán 'to win'
	nám 'do'	ndí-nám 'to do'
	kará 'rule'	ndí-kará 'to rule'

The prefix édí- can also be attached to the root of verbs that can be used with the forms àndí- and ndí-. It expresses the (present or past) progressive action. It is used to form verbals or gerunds and is frequently associated with modifiers and complements in the gerund phrase:

(d)	verb (X)	derived noun (doer of X)
	má 'love'	édí-má 'loving'
	suá 'hate'	édí-suá 'hating'
	kán 'win'	édí-kán 'winning'
	nám 'do'	édí-nám 'doing'
	kará 'rule'	édí-kará 'ruling'

This prefix can also function as an adjective when it is attached to certain verbs like:

verb (X)	derived adjective
(e) má 'love'	édi -má (ékà) '(a) beloved (mother)'
nwíñ 'drink'	édi-nwíñ (mmíñ) 'drinkable (water)'
tá 'chew'	édi-tá (iwá) 'edible (cassava)'
ye 'be pretty'	édi -ye (ánwán) '(a) pretty (woman)'

The edi- prefix is one of the productive prefixes in word formation in Efik.

Prefixes as heads

From our examination of the structure of Efik words, we have found out that most words in Efik are morphologically complex. Going by Williams (1981), Scalise (1984), Spencer (1991) and Owolabi (1995), one of the most influential views in contemporary (generative) morphology is that morphologically complex words have heads. Where the term head is used essentially the same way it is used in syntax, that is, the head of a construction is what determines the syntactic category of that construction (Owolabi 1995:104).

Scalise (1984: 96) argues that the head of a morphologically complex word assigns to the entire word its category by means of a mechanism referred to as percolation. He further describes the difference between the head and the other part of a complex word as follows:

... a head 'counts' in relation to the feature it carries, while the other elements 'count' in relation to the fact that they represent the presence of morphological material.

In Efik, most prefixes have the characteristics of a head, particularly the category changing prefixes. Let us examine the following synthetic compound words and their derivations:

23. verb + noun (X) derived compound noun (doer of X)

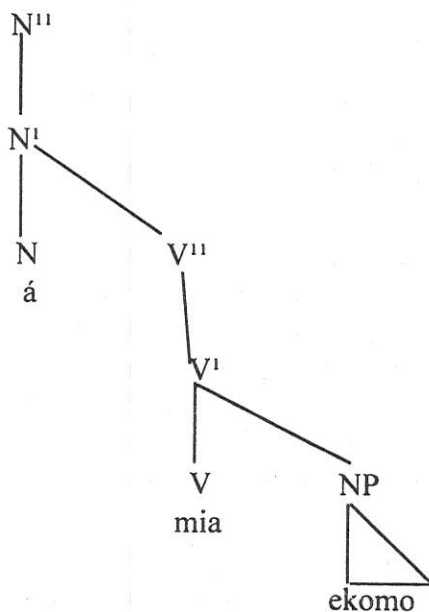
- (a) míá èkòmò á- míá èkòmò - 'drummer'
(beat + drum)
- (b) kpép nwèd é-kpép nwèd - 'teacher'
(teach + book)

Going by the basic methodology of lexical phonology, the VPs, *miá* *èkò mò*, 'beat drum' and *kpép nwèd* 'teach book' in 23 are respectively reintroduced into the lexicon for nominalization through the prefixation of *á* and *é* respectively. The prefix functions as the agent or doer of the action described by the VP; hence it is the head of the derived compound noun. It is modified by the verb, and the post verbal noun functions as the complement of the verb. The verb + noun string is dependent on the prefix, which determines the syntactic property of the entire structure. In other words, the prefix determines the lexical category of the whole construction.

Observe the tonal implication of the nominalizing prefix. Its inherent high tone influences the low tone of the initial syllable of the nominal root to become high. This is a form of tonal assimilation. According to Chomsky and Halle (1968), these kind of affixes are said to have a strong boundary, since they can have phonological effects on the base to which they are attached. They are called non-neutral affixes in contrast with neutral affixes, which do not trigger such effects.

We can represent 23(a) structurally as 24 from the perspective of standard X-bar theory:

24.



Here, we claim that the prefixes in 23(a) and (b) are heads by virtue of the fact that they assign the category label N to the entire complex nouns of which they are part in 23. This implies that these prefixes must also be dominated by the category labelled N. From this evidence, it seems that Efik prefixes are left headed. The derivation in 23 and structural representation in 24 clearly show that Williams' (1981: 248) Right-hand Head Rule (RHR), which forbids prefixed heads and allows only the right hand member of a complex word the morphological privilege of functioning as the head of the complex word in question cannot apply universally. This is in agreement with Scalise (1984) who observes some Romance examples which are exceptions to the Right-hand Head Rule.

By regarding prefixes as heads, the complex nouns of which these prefixes are part demonstrate a striking structural similarity to phrases in that they both have category labels. However, a problem on whether or not all morphologically complex words in Efik have heads arises. This is because some complex words in the language are derived by means of reduplication and in this case, when some nouns or verbs are formed by repeating the same words, there is really a problem of defining which of the two forms constitutes the head of the complex word. This is the class maintaining forms. In the case of the class-changing forms, the syntactic category of the root differs from that of the complex noun. In other words, where we have, for instance, the structure noun + noun, it is difficult to determine the head of the complex word. This is because the root is repeated either to the left or to the right.

According to Owolabi (1995:106), the device which enables a complex word to inherit the syntactic properties (or feature) of its head is referred to as percolation. Scalise (1984:96) supports this definition thus: "if a constituent a is the head of a constituent b, a and b are associated with an identical set of features (syntactic or diacritic)". Following this definition and the fact that prefixes as heads must be dominated by the category label N, the percolation of the category label N subsumes the head to the entire complex noun in each of the categories.

The motivation for making the prefixes in 23 heads is nominalization, which merely converts verbs into nominal expressions. Further evidence

Conclusion

This paper has been concerned with prefixation as one of the most productive word formation processes in Efik. We have taken into account the structure of Efik prefixes, which constitute a syllable of the forms V, CV, CVC, or VCCV and whose phonetic shapes are determined by the SC or root element it co-occurs with; depending on the type of grammaticalised person involved. The paper has examined the role of the prefix in signalling certain grammatical contrasts involving such categories like tense, negation and number, among others. The role of prefixes in word formation and the functions of prefixes as heads of some morphosyntactic constructions have been examined. A general assumption has been made; that is, apart from the principle of vowel harmony, which is a dominant process, other grammatical processes like nasalization, nominalization, syllabification, and tonal contrast, are important features of the morphology of Efik prefixation, and that stems and prefixes do not occur randomly, but systematically in a rule-governed order.

We wish to interpret the following abbreviations in order to facilitate our analyses: Adv(erb), Asp(ect), Aux(iliary), Conj(unction), FUT(ure tense), Mod(ality), Neg(ation), N(oun), NP (Noun Phrase), PRES(ent tense), PAST(Past tense), Pro(noun), Pfx (Prefix) SC (Subject Concord), 1SG (First Person Singular), 2SG (Second Person Singular), 3SG (Third Person Singular), 1PL (First Person Plural), 2PL (Second Person Plural), 3PL (Third Person Plural), Spec(ifier), Tn (tense) and V(erb).

References

- Allerton, D. (1979). *Essentials of grammatical theory: A consensus view of syntax and morphology*. London: Routledge & Kegan Paul.
- Anagbogu, P. (2003). Nominalizing prefixes of Koring. In Ndimele, O. (ed), *Four decades in the study of languages and linguistics in Nigeria: A festschrift for Kay Williamson* (pp. 701-706). Aba: NINLAN Press.
- Chomsky N. and Halle, M.(1968). *The sound pattern of English*. New York: Harper and Row.

- Comrie, B. (1976). *An introduction to the study of verbal aspect and related problems*. Cambridge: Cambridge University Press.
- Essien, O. E. (1983). The tense system of Ibibio. *Current approaches to African linguistics*. 2 (20) 329-344.
- Essien, O. E. (1990). *A grammar of the Ibibio language*. Ibadan: University Press Ltd.
- Faraclas, N. (1989). The Cross River languages In Bendor-Samuel, J. (ed.), *The Niger-Congo Languages* (pp. 377-394). University Press of America.
- Greenberg, J. H. (1963). *Languages of Africa*. The Hague: Mouton.
- Kari, E. E (2003). *Clitics in Degema: A meeting point of phonology, morphology and syntax*. Tokyo: Research Institute for Languages and culture of Asia and Africa.
- Katamba, F. (1993) *Morphology*. New York: Palgrave.
- Langacker, R. (1972). *Fundamentals of linguistic analysis*. New York: Harcourt, Brace, Jovanovich.
- Mensah, E. (2001). Negation in Efik. *Kiabara: Port-Harcourt Journal of Humanities*, 7 (2) 61-68.
- Mensah, E. (2007). Number and person in Efik. *Lingua et Linguistica* 1 (2), 61- 75.
- O'Grady, W., Dobrovolsky, M. & Aronoff, M. (1989). *Contemporary linguistics: An Introduction*. New York: St. Martins Press.
- Owolabi, K. (1995). More on Yoruba prefixing morphology. In Owolabi, K. (ed.), *Language in Nigeria: Essays in honour of Ayo Bamgbose* (93 – 112). Ibadan: Group Publishers.
- Radford, A. (1999). *Syntactic theory and the structure of English: A minimalist approach*. Cambridge: Cambridge University Press.
- Robins, R. H. (1989). *General linguistics*. London: Longman
- Scalise, S. (1984). *Generative morphology*. Dordrecht: Foris
- Smith, G. (1991). *Computers and human language*. Oxford: Oxford University Press.
- Spencer, A. (1991). *Morphological theories*. Cambridge: Blackwell.
- Williams, E. (1981). On the notion of 'lexically related' and 'head of a word'. *L1* 12, 245 – 274.