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| RESEARCH ARTICLE

The Concept of Affix Hopping in English and Mwaghavul

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| ABSTRACT

This research is a contrastive study of affix hopping in English and Mwaghavul. It describes the processes of affix hopping and the transformational analyses of the structures in both languages. The analytical frameworks provided by contemporary scholars, Aarts and Radford, which are based on insights from Chomsky, Jackendoff and other scholars, are adapted for the analysis of sentences in this study. The study used the Transformational Generative Grammar (X-bar) approach. All the sentences analysed are obtained from Aars (2001) and Burton-Roberts (2011). From this study, it is clear that there are fewer similarities than differences in affix hopping in English and Mwaghavul. Some of the findings from the study are, in Mwaghavul, instead of the affix hopping rule being applied in simple present and past tenses, adverbs, *tèn* or *je* are used to express past tense (indicating something that has already been done or taken place) while the adverbs, *wura* (feminine)/*wuri* (masculine) or simply *ra* or *ri* are used to indicate habitual action or actions in the present simple tense. A sharp contrast between the concept of affix hopping in English and Mwaghavul is that while the basic forms of affix hopping in English occur in simple present tenses, past and also progressive tenses, that of Mwaghavul is majorly in progressive tenses. It is also obvious from the study that generally, the concept of affix hopping is notadequately utilized in Mwaghavul, just like in other Nigerian Languages like Idoma, Hausa, and Tarok explored in the study. Thus, it can be concluded that the concept of affix hopping is more prevalent in the English language than in Mwaghavul and other Nigerian languages.

| KEYWORDS

Morpheme, affix, hopping, affix hopping rule, affix hopping in Mwaghavul, affix hopping in English.

| ARTICLE INFORMATION

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1. Introduction

Mwaghavul is an Afro-Asiatic language spoken in the Plateau state of Nigeria. It is a West Chadic language spoken in Mangu Local Government Area of Plateau State, Nigeria, with an estimated population of 150,000 speakers. Their two main towns are Mangu and Panyam. The Mwaghavul are also known as 'Sura or Mupun'. The English language, on the other hand, is a Germanic language.

Affix hopping, according to Hagstrom (1), is a morphological operation whereby an unattached affix in the T position is lowered onto a verb. The affix hopping model was first developed by the linguist Noam Chomsky in the late 1950s. This model was one of the first used in linguistics for 'movements'. The three main auxiliaries, 'be', 'have'

and 'must', commonly reflect affix hopping. Affix hopping occurs when Tense, Auxiliary and Modals (TAM) become stranded. This necessitates why the morpheme that is affixed has to jump to the main verb to be properly accounted for. The auxiliary 'be' requires that the next word end in –ing, for example, *be eating*. The aux, 'have', requires that the next word end in 'ed', for example, *have eaten*. The auxiliary 'be' is a complex word with two parts, BE-ING. The –ing ending must hop over onto the next word; for example, BE- ING shows progression. The auxiliary 'have' is also a complex word with two parts: HAVE-EN. The ending, which sometimes shows up as –ed with certain verbs, must hop over onto the next word, for example, HAVE-EN (perfect). It is vital to note that modals do not change form when assigned to tense; for example, we do not say *he mus*ts for present tense or *he musted* for past tense. Various languages present different syntactic mechanisms for expressing affix hopping.

Hagstrom (1), citing Lasnik (1994), proposes the following system to explain the difference between English 'have' and 'be' and English main verbs. They are as follows:

(1) a. INFL is freely an affix or a set of abstract features

b. Affixal INFL must merge with a V, a PF process demanding adjacency ("Affix Hopping")

He also captures the typological variation between English, French, and Swedish with respect to the verb-raising behaviour of main and auxiliary verbs as follows:

(2) a. In English, auxiliaries come from the lexicon fully inflected, while the main verbs come from the lexicon as bare stems. The conclusion is that the INFL features are strong here.

b. In French, all verbs come from the lexicon fully inflected. Here, the INFL features are strong, while

c. In Swedish, all verbs come from the lexicon fully inflected, but the INFL features are weak here.

The affix hopping approach (Chomsky 1957) essentially proposed that the verbs are stored in the bare form in the lexicon but obtain an affix through the affix hopping transformation in syntax. Chomsky (1993), however, rejects his earlier position and argues for the lexicalist approach that the verbs in the lexicon are already stored in the inflected forms. Whether they raise overtly in syntax is determined by their feature settings: main verbs have weak features and do not raise overtly, while aux verbs overtly raise due to their strong feature. Lasnik (1995) argues for the hybrid approach that main verbs ate bare in the lexicon (as in the affix hopping approach), but aux verbs like have and be are inflected in the lexicon (as in the lexicalist approach).

Omaki proposes a feature-based affix hopping system that is exempt from conceptual problems to be:

(a) All verbs are bare in the lexicon, but all Vs and Ts have the same set of formal features.
(b) A lexical item can be affixal (specifying its phonological features) and featural (specifying the syntactic properties).
(c) An affixal head receives its default pronunciation.

He further assumes the following:

(a) Main verb, *come*, has weak T features, while *have* and *be* have strong T features
(b) T can check features of have and be and is affixal
(c) Verbs selected by modals have weak M features
(d) –ing has a strong V feature and overtly attracts V, while 'en' has a weak V feature (p.5).

Hagstrom says, "The affix Hopping system in (1) and (2) above provides an alternative explanation for the contrasting movement properties of English auxiliaries and main verbs". The system suggests that main verbs do not need to move because they "co-occur in numerations with "affixal INFL," which has no strong verbal features to check, allowing the verb to remain in place at least until Spell-Out" (p.3). It is possible that the actual implementation of this system will need to be modified somewhat from that presented in Lasnik (1994).

According to him, the main achievement of the system in (1) and (2) is that it allows a revival of a natural account of "do-support", which dates back to Chomsky (1957).

Example: Mary love chips (deep structure)

Mary s love chips.

The tense feature, 's' is stranded and has to hop to the main verb, 'love' in order to agree in tense and number. It becomes:

Mary loves chips

Given the differing behaviours exhibited by these affixes, it is possible to consider the '-en' and '-ed' affixes as a different sort of entity from '-ing'.

One possible explanation Hagstrom says is simply that the progressive feature is interpretable on the verb and that '-ing' forms are pulled from the lexicon with '-ing' already attached. Such an explanation, however, weakens the concept of being pulled "bare" from the lexicon. He suggests that a more attractive possibility is that '-ing' heads its own functional projection, which takes a VP as its complement, coming in with a strong feature (perhaps a V feature) that forces the verb to move up overtly. If this were the case, he says, then'-ing' differs from '-en' and'-ed' in the sense that it is a process of incorporation rather than a PF merger.

According to Hagstrom, "the affix '–ed' is located in TENSE, but we don't yet have any strong reasons for placing '-en' at any particular point in the syntactic structure" (p.12).

Hagstrom suggests a few amendments and clarifications to a system in which Affix Hopping is assumed, which he summarises as follows:

a. Tense features are interpretable on TENSE and uninterpretable on the verb.

b. TENSE (in English) uniformly has a strong uninterpretable 'D' feature (EPP) and interpretable Tense features.

c. A verb preinflected in the lexicon is a verb which has uninterpretable tense features, which motivate the movement to TENSE.

d. TENSE, when non-adjacent to a verb at PF, is realized as do, otherwise as an inflection on the verb through PF merger (p. 9).

This view above also forces a restatement of Lasnik's suppositions, which are given below:

a. In English, auxiliaries come from the lexicon preinflected, main verbs do not come from the lexicon preinflected. Tense features are strong on preinflected verbs.

b. In French, all verbs come from the lexicon preinflected. Tense features are strong on preinflected verbs.

c. In Swedish, all verbs come from the lexicon preinflected. Tense features are weak on preinflected verbs.

The motivation for this study is investigating how affix hopping takes place in English and Mwaghavul, with special attention to their similarities and differences. Quite a lot has been done on affix hopping, especially in English and other languages, but that of Mwaghavul is, at present, difficult to access. This study seeks to do a descriptive study of the concept of affix hopping in English and Mwaghavul and also do a survey of this concept in a few other languages.

2. Methodology

The sentences analysed in this work were obtained and modified (adapted) from Aarts (2001) and Carnie (2007) and used for analysis. The direct translation and word–for–word glossing for the words from Mwaghavul language to English is done before the literal translation. Thereafter, three diagrams are used to represent the sentences.

3. Framework

The study used the Transformational Generative Grammar (X-bar) approach. This is quite apt for the study.

X-Bar syntax is a theory of phrase structure grammar (PSG), which was developed by Chomsky (1970) and further developed by Ray Jackendoff (1977). The theory traces back to the theory of Transformational Generative Grammar (TGG), which is also referred to as the

Standard Theory (ST). The theory was developed in 1957 and 1965 in that order. Haegeman (1994) posits that in standard theory, grammar is organised along three major components, namely: syntactic component, which deals with syntactic structure and rules ranging from base rules to transformational rules, and the semantic component, which assigns semantic interpretation to the syntactic element using the structural properties of the lexical items in a language. It operates only in the deep structure, which is the sole determinant of meaning. The phonological component deals with the rules of the sound system of the language, and it gives the surface structure interpretation of the output of the syntactic component.

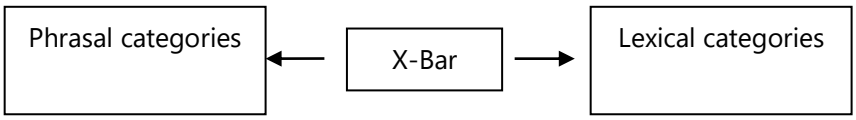
Aarts (1997) defines x-bar syntax as "a theory which stipulates that all the major phrase types are structured in the same way (p.119). He posits that the x-bar is a major improvement on the so-called 'flat' structures. That is, structures where all elements are on the same level.

In ancient times (among Roman grammarians), the traditional parts of speech underwent changes since their emergence. The structuralists, however, find them insufficient in accounting for the different grammatical categories that exist among most of the European languages in the world. Chomsky (1970), in his transformational grammar model, returns to the traditional parts of speech, arguing that all languages should have similar parts of speech. He bases this on the premise that there are universal structure rules that operate across all languages. These are: NP, Det, Aux, VP and S. These were later expanded into lexical and phrasal categories.

Lexical categories – N, V, AUX, A, ADV, DET, DEG, CONJ, PRO, Q...

Phrasal categories – S, NP, VP, AP, PP, ADVP, QP...

Phrase structure rules portray how syntactic rules are found and describe how syntactic categories combine to form larger constituents, which are shown on tree diagrams. In the course of time, linguists noticed a problem with phrase structure grammar (PSG), which does not make a provision for a category intermediate between the phrasal categories and lexical categories. This category will be called the X-bar category. To point out clearly, PS rules do not differentiate between complements and adjuncts, which leads to ambiguity in sentences. PS Rules are language specific in that they consider linear order. For example, English is head initial and specifier initial, but other languages like Japanese are head final. PS is considered to be a flat structure and, therefore, uninformative and restrictive.



This framework is apt for the present study.

4. Literature Review

4.1 Affix Hopping In Owe

According to Arokoyo 12, in Owe, the morheme 'í' indicates a continuous action. It is vital to note that in Owe, no auxiliary or morpheme indicates a present simple tense, and there is also no auxiliary that indicates past tense. Example:

Solá í mu eko

Solá CONT drink pap

Solá is drinking pap

Tóbije àkàrà

Tobi eat bean-cake

Tobi ate bean-cake. Note that it is the same for present and past tense.

4.2 Affix Hopping In Taroh

Ù Tali là páò gà cít

Tali said that he-has go already

Tali said that he has already gone (Longtau 77)

It is vital to note that in Tarok, no auxiliary or morpheme indicates a present simple tense, and there is also no auxiliary that indicates past tense; instead, an adverb, 'cit' meaning, is already used at the end of the sentence.

In Tarok, the morheme 'kən' indicates a continuous action

Uzè kən rí yemri

She ing eat food

She is eating food

4.3 Affix Hopping In Idoma

She eats food

O lodulé

Note that there is no auxiliary that indicates the present simple tense in Idoma.

She has eaten

O lodulé lɛ*e*

In Idoma, 'e' is the past tense morpheme that indicates past tense.

She is eating

O yo l'odulɛ

She ing eat food

The auxiliary, 'yo' indicates progression in the Idoma language. (Interview with a native speaker)

4.4 Affix Hopping In Hausa

She eats food

Ta na cin abinchi

He is or (s) eat food

In Hausa, the morpheme, 'na' indicates a habitual action. It is used in the present simple tense.

She has eaten

Ta ci abinci ko

She eat food already.

In Hausa, there is no auxiliary that indicates past tense; instead, an adverb, 'ko', meaning already, is used at the end of the sentence.

She is eating

Ta na kan cin abinci

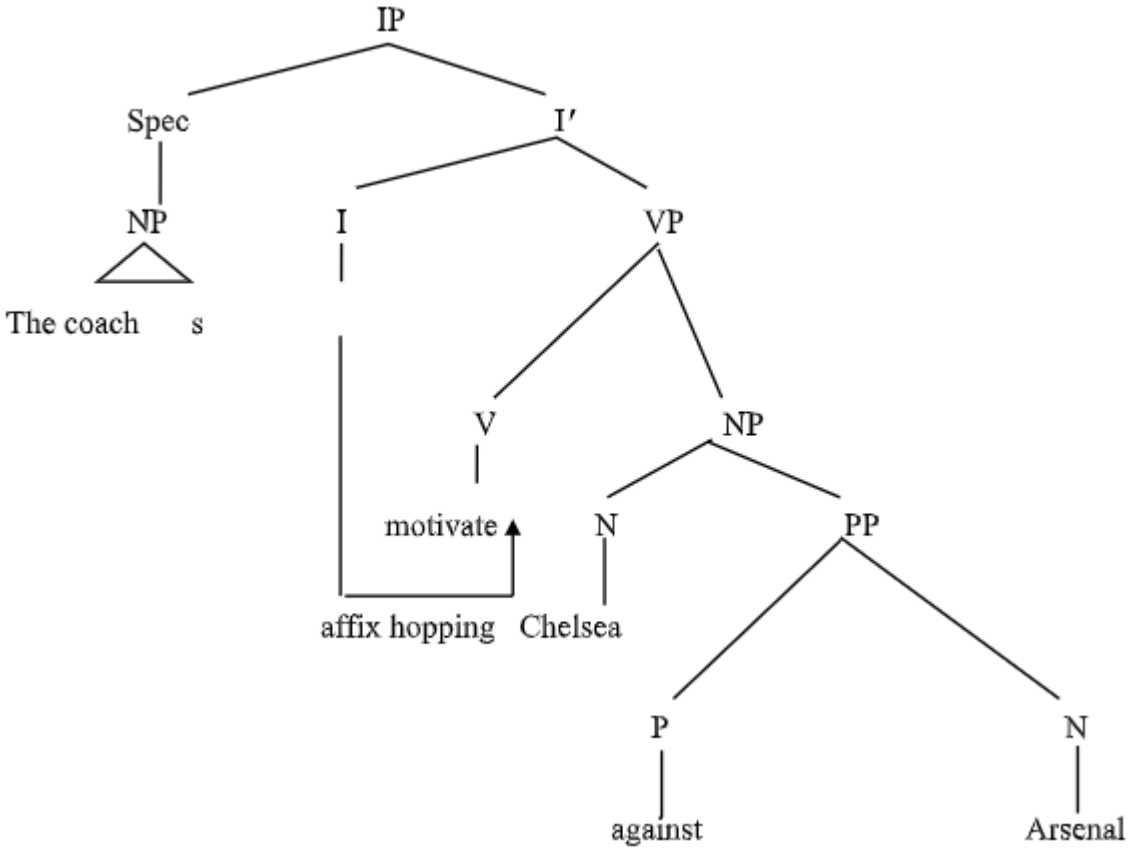
She is on eat food

She is eating food

In Hausa, an adverb, 'kan' is used to indicate an on-going action. (Kamus na Hausa).

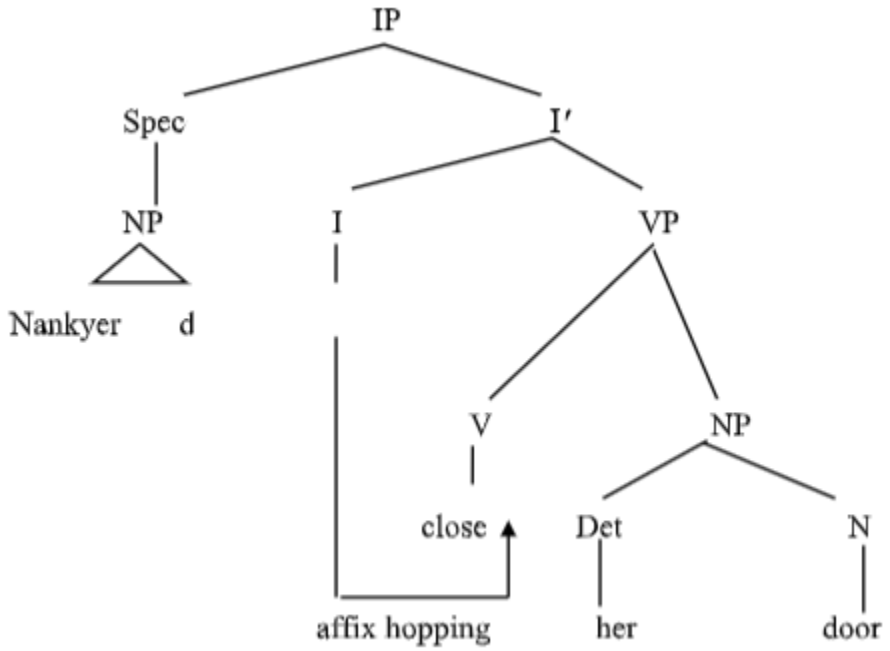
5. Affix Hopping In English

1. The coach motivates Chelsea against Arsenal.



According to Radford's type of analysis, the IP branches into a Specifier node, which accounts for the NP 'the coach' and an I' node, which branches into an I node and a VP node. The I node accounts for the inflection feature 's', which indicates present tense and agreement with the NP, which is singular. The VP branches into a V node, which accounts for the verb 'motivate' and an NP, which branches into an N node and a PP node. **The 's' under the inflection node jumps to the right hand side to meet the base form of the verb, 'motivate' under the V node. This is called affix hopping.** The N node accounts for the noun 'Chelsea' while the PP branches into a P node (against) and another N node (Arsenal). The affix hopping rule employed here is: NP +Pres+ V+NP.

2. Nankyer closed the door.

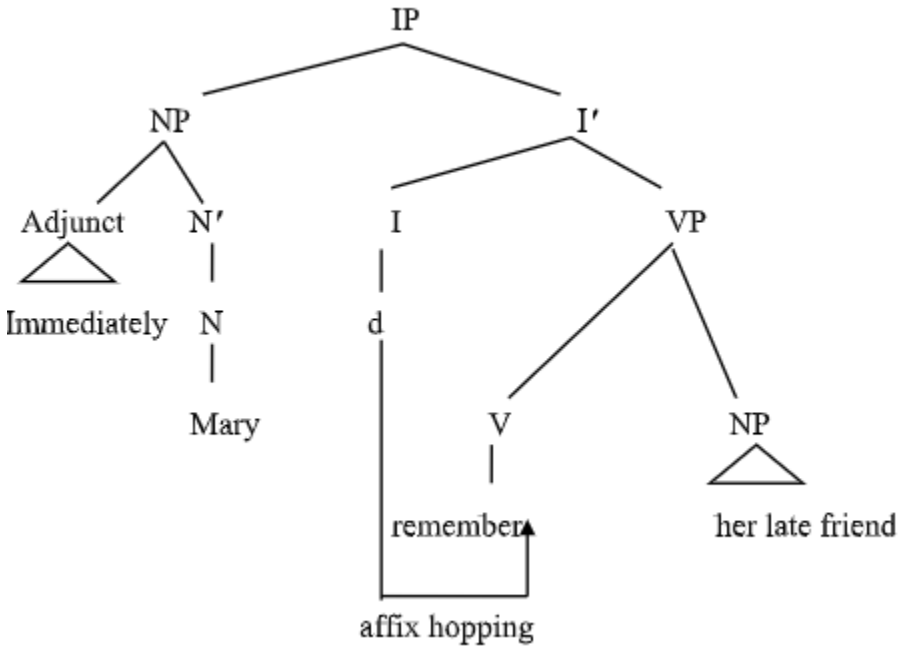


The analysis above is according to Radford, where a sentence is moved to an 'inflection phrase' (IP). The IP branches into a Specifier node (which accounts for the NP 'Nankyer') and an I**'** node, which branches into an I node and a VP node.

The I node accounts for the past tense morpheme, 'd' and the VP node. The VP branching node dominates the V and the NP nodes. It splits into a V node (which accounts for the base form of the verb 'close') and an NP node, which further branches into a Det node and an N node. **The past tense morpheme, 'd' hopps to the right (to the base form of the Verb), under the VP to make it past tense. The second NP accounts for the pronoun, 'her' and the noun 'door'**.

The affix hopping rule applied here is: NP +Past+ V+VP.

3. Immediately, Isobel remembered her old school

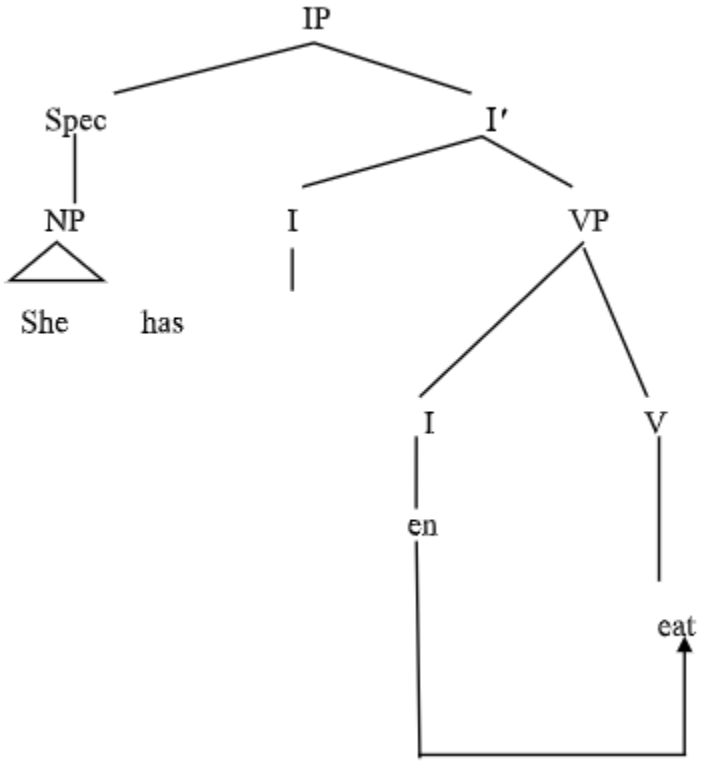


This analysis is also according to Radford's method. The IP branching node splits into NP and I' nodes. The NP node dominates an adjunct node and a N'node. The adjunct node accounts for the adverb, 'immediately', while the N' accounts for the noun, 'Mary'.

It is important to note that the adjunct, 'immediately,' is mobile. This implies that it can fit into different positions in the sentence. It can come after the noun 'Mary', after the verb 'remembered' or after the noun phrase 'her late friend'. This mobility of adverb is a type of movement operation in Generative Grammar. **The I' node branches into an I node and a VP node. The I node accounts for 'd' which is the inflected morpheme of the verb 'remember' to make it a past tense. This results to an affix hopping (a jump to the right) because the past tense morpheme, 'd' hopps to the end of the verb 'remember' to make it 'remembered', making it the past tense form of the word.** The VP node branches into a V node, which accounts for the verb 'remember' and a NP node, which accounts for the phrase, 'her old school'.

The affix hopping rule applied here is: NP + Past+ V +VP.

4. She has eaten.

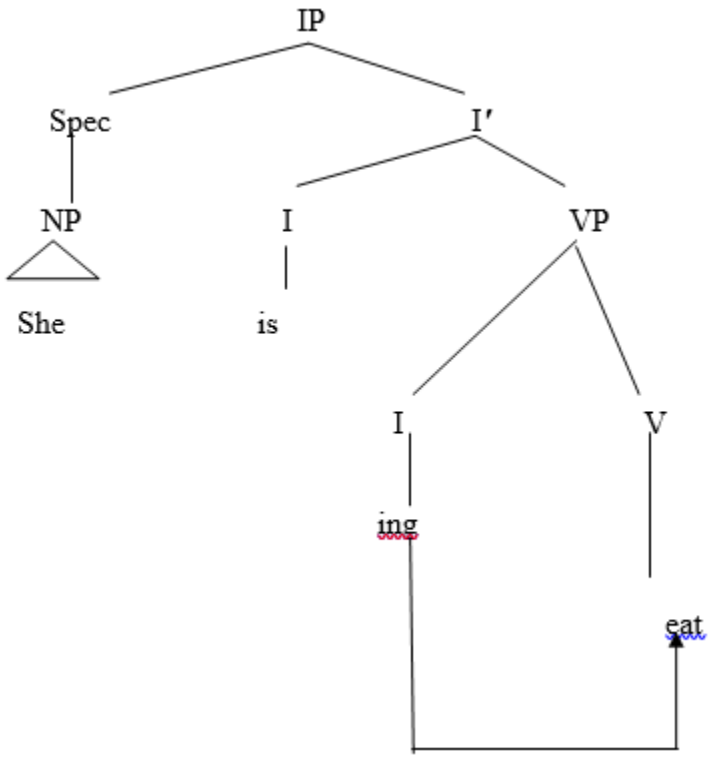


The IP node, according to Radford's analysis, branches into a Specifier node and an I'node. The Specifier node accounts for the noun 'she' while the I'branches into an I node and a VP node. **The I node accounts for the auxiliary verb, 'has,' and the VP branching node splits into another I node and a V node. The I node accounts for 'en', which is the inflected morpheme of the verb 'eat' to make it a past tense. The morpheme. 'en' is the affix and has the 'have', the tense-bearing auxiliary. This results to an affix hopping (a jump to the right) because the past tense morpheme, 'd' hopps to the end of the verb 'start' to make it 'started', making it the past tense form of the word.**

The affix hopping rule applied here is: NP +Have+-en+ V

The *–en* is the affix and *have* the tensed-bearing auxiliary

4. She is eating.



This structure is similar to the one above except that it is the morpheme, '-ing' that is the affix and has the 'be', the tense-bearing auxiliary. This results to an affix hopping (a jump to the right) because the past tense morpheme, 'd' hopps to the end of the verb 'start' to make it 'started', making it the past tense form of the word.

The affix hopping rule applied here is: NP +be + -ing + V

6. Affix Hopping In Mwaghavul

Mwaghavul, like any other language, has its syntactic mechanisms for accounting for affix hopping. Example:

5. Nankyer shagat polu kira Nankyer shagat polu kira je

Nankyer close door her Nankyer close door her already

Nankyer close her door Nankyer closed her door

Here also, no affix hopping applies, unlike in English, where hopping occurs. The adverb 'je', which means already, can be added to indicate a past action.

6.Mary wura chèt bisé

Mary s cook food

Mary cooks food

7. Daniel wuri/ri dom Mary

Daniel s love Mary

Daniel loves Mary

In Mwaghavul, there is no auxiliary that indicates a habitual action. Here, no proper affix hopping occurs, unlike that in English. The addition of an adverb, 'wura' or 'ra' is used to indicate habitual action or actions in the present simple tense. Example:

8. Mary nka chèt bisé

Mary PROG cook food

Mary is on cook food

Mary is cooking food

Note that the morpheme, 'nka' is added to indicate a progressive action.

The affix hopping rule will be: NP + Prog + V+ NP.

9. Example: wàghà ḱɨ jì

You PROG come

You are coming.

The morpheme, 'kɨ' also marks progressive action. It is used as 'Kɨn', when used with the first person singular.

10. He slept

Ri tèn sam

He already sleep **or**

Ri sam je

He sleep already

Both meaning 'he has slept'

The adverbs, 'tèn' or 'je' is used to express past tense, something that has already been done or taken place.

7. Summary and Conclusion

From the study, it is obvious that there are very few similarities and mostly differences in the concept of affix hopping in English and that of Mwaghavul. A sharp contrast between the concept of affix hopping in English and Mwaghavul is that while the basic forms of affix hopping in English are in simple present sentences, past sentences, and also progressive sentences, Mwaghavul is majorly in progressive sentences. It is also obvious from the study that in Mwaghavul, instead of the affix hopping rule being applied in present simple and past tenses, adverbs, 'tèn' or 'je' is used to express past tense, something that has already been done or taken place while the adverbs, 'wura' (feminine)/ 'wuri' (masculine) or simply 'ra' or 'ri' are used to indicate habitual action or actions in the present simple tense.

However, in Mwaghavul, in past sentences, no affix hopping applies, unlike in English, where hopping occurs. The adverb 'je', which means already, can be added to indicate a past action. It is vital to note that generally, the concept of affix hopping is not very utilized in Mwaghavul, just like in other Nigerian Languages like Idoma, Hausa, Tarok explored above.

Finally, the concept of affix hopping is more prevalent in the English language than in the Mwaghavul language and other Nigerian languages.

7.1 Relevance of the Study

This research is very relevant because it studies how affix hopping occurs in English, Mwaghavul and a few other languages. It also studies how the rule operates in these languages. Contrastive studies of languages are of great

help to students of English and Linguistics in helping them better understand various concepts in the English Language. This is because it takes one with a good mastery of his/her mother tongue to better understand a second language. Effective learning could be said to be complete only when the knowledge acquired can be applied. This study is a bit to apply the knowledge learned in English for a deeper understanding of even the English language. This is because we all have L1, and English is at least our L2. It takes one with a good mastery of his/her L1 to fully understand an L2, just as it takes an English man whose L1 is the English language a good mastery of English to effectively learn and understand a new language or an L2. This is because one, first of all, understands what he hears in his L1 before he immediately translates it into L2. The study also unveils the similarities and differences that exist in affix hopping in English and Mwaghavul.

This study will, therefore, serve as a relevant document for Mwaghavul students of English and Linguistics and even other interested scholars as a good guide for linguists interested in contrastive study of English and other languages.

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