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Complementation and the Position of Some Attributive Adjectives and Numerals and Quantifiers in Mbaise- Igbo Syntax

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Abstract: An analysis of the relationship between the NP and its modifying and qualifying elements (specifers) in Maise-Igbo, shows that the position some of these modifying and qualifying elements vis-à-vis the head seems to be varying between initial, medial, and final at times, making the strictly head-initial and complement-final stance questionable. Notable among these specifiers are some attributive adjectives, numerals and some quantifiers, which pose problem in analyzing Mbaise-Igbo as strictly head-initial This paper is out to highlight the processes of complementation of the head noun in the Mbaise- Igbo NP, and the areas of constraint in the complementation process of the head noun, under government and binding syntax. Using a qualitative method, primary data forms a greater part of the data used for the study. This includes personal intuition and stock of personal information, introspection of a competent native speaker, conversant with the principles and the structure of Igbo language and Mbaise dialect in particular, and a field experience of language teachers based on interaction with students of Igbo language. Purposeful published and unpublished materials in the linguistic literature, internet materials in related areas, were also consulted to enrich the literature. The research recommended the determiner phrase (DP) as an embracing term to capture the flexibilities in the position of the specifiers.

Key words: Adjectives • Quantifiers • Igbo and Synthax

INTRODUCTION

The paper gives a systematic descriptive analysis of the noun and the constituents of the noun phrase and their processes of complementation in Mbaise-Igbo, using the Government and Binding framework (GB) [1-3]. The positions of the head of the noun phrase and the subject of complementation have been objects of controversy. The paper based on Mbaise-Igbo dialect, tries to identify the head of the noun phrase and its relationship with the specifiers in a more detailed way, in order to determine whether the head of the NP is strictly initial or otherwise, and to tackle the areas of flexibility of occurrence [4, 5, 6]. The GB framework of syntactic analysis explains the combinatorial possibilities between the head noun and its qualifying and modifying elements and their syntagmatic relationships. The work divided into various sections, includes an abstract, theoretical and conceptual reviews and definitions, the explanations of the different notions of the noun/noun phrase structures,

using some structures from the Standard Igbo and Mbaise dialect. The study is significant for the fact that it identifies the elements subcategorized by the noun and the combinatorial possibilities between the nouns and the modifying/qualifying elements (specifiers). It also engenders further research into the areas of flexibility and complementation processes in Mbaise-Igbo noun phrase. The work also provides materials for cross-linguistic references for researches in the dialects of Igbo and other similar languages [7-9].

Definition of Key Words: Syntax- Word-order/the arrangement of words and phrases to form grammatical sentences in a language Complement-all the constituents of a sentence governed by the verb/ sister-constituents of the verb.

Head- is the chief element in a phrase structure upon which other elements revolve Determiner Phrase (DP) - is a type of phrase headed by a determiner, containing both noun and complement

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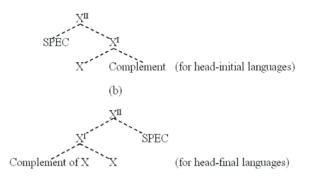


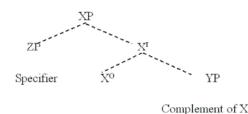
Fig. 1: (a) and (b)

Theoretical Reviews

Phrase Structure and Complementation: The nature of phrases is governed by the principles of X^{I} theory, whereby, every head (X°) is projected as a phrase (XP) [10]. The head may be combined with a complement phrase and a specifier as represented in these configurations:

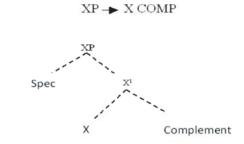
The structures in Figs. 1 (a) and (b) are claimed as the universal structures of all phrases, but some parametric principles allow for variation in the actual ordering of the elements; that is, depending on the particular language (and perhaps the kind of projection), the complement may precede or follow the head and the specifier may precede or follow the X^1 node.

Government and Binding Theory: Government-Binding theory (GB) is a theory of syntax and a phrase structure grammar in the tradition of transformational grammar, developed mainly by Noam Chomsky in the 1980s - (1981 / 1993, 1982, 1986). The term 'GB' is used to refer to two central sub-theories of the theory: 'government', an abstract syntactic relation, which deals with among other things, proper governance and case assignment to the empty categories, while 'binding' accounts for the grammaticality or otherwise of structures, dealing chiefly with the relationship between anaphors and the antecedents with which they are co-referential. The government relation also disambiguates case assignment. The heads of each of the categories (V, N, A, P) and tensed INFL (T) are governors. Thus, "a mcommands β if α does not dominate β and β does not dominate α and the first maximal projection of α dominates β . The maximal projection of a head X is XP" [11, 12]. The explanation of the fact that α m-command β but β does not m-command α , is represented with the figure below:





Complement in Government and Binding: Government and binding theory in its domain works with sister-hood relations. Following the notion of sisterhood relations, complementation is seen as a system of deriving a "sister" constituent of a lexical head. Within generative grammar, a complement is that constituent that shares the same node with the head of a lexical category. [13, 14], defines a complement as "a syntactic unit that is the sister to the head of a phrase". The figurative schema below shows sisterhood relations of a complement and the head in English:

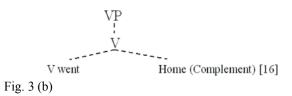


(For head-initial languages) [15]

Fig. 3: (a)

 $XP \rightarrow X$ COMP, where COMP stands for complement (that could be a PP or an NP). X stands for any lexical category e.g. N, V and P.

When X equals **N**, then XP is an NP, when X equals V, then XP is a VP, etc., as shown below:



Government-Binding theory concerns relations, which lexical items exert on one another in a syntactic configuration. Both theories are limited by the rules of precedence, dominance and governing categories, which the machinery of their operation applies within the area of the rule governing them [17]. In government and Binding, the term 'complement' does not identify a categorial element, but "a position which is filled by different items of various categorial statuses" [18, 19], defines 'complement' as a sister of X° and a daughter of its one–bar projection", adding that the "complement can in principle appear on the right or on the left of X°". According to [20], the branching direction of the complement depends on the head position parameter. Thus, in SVO languages, the complements of X° follow it. English is a case in point, where the branching direction of V¹ containing the complements of V is to the right, as the complements of P¹ N¹ and A¹, are also to the right.

 $XP \rightarrow X \text{ COMP}$ or $XP \rightarrow (X YP)$ (languages other than head-initial Akmajian *et al.* 2008:519).

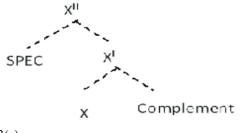


Fig. 3(c)

Languages, like Korean and Japanese, exhibit an alternative order (SOV) $XP \rightarrow YPX$, where the heads appear to the right of the complement [21].

Conceptual Reviews

The Noun/ Noun Phrase Structures and Subcategorization Pattern: Nouns like most content words have the basic characteristic of either being semantically opaque, vacuous or transparent. A noun is said to be vacuous when its meaning cannot be precisely determined even in context, perhaps as a result of semantic overloading. Hence, vacuous nouns demand for complements to make their meaning precise.

Examples:

- 1. (a) The boy went home.
- (b) I want the seat.
- (c) The boy in the blue uniform went home.
- (d) I want that seats that is high.

In 1 (a-b) respectively, 'the boy' and 'that seat', are somewhat vacuous, but when they take the complements 'in blue uniform', 'that is high' as in (c-d), respectively, they became more precise and point-clear. The noun head also determines the part of speech of marking for the phrase as a whole [22]. From sentences (a)-(d), it becomes obvious that complements of noun are not obligatory constituents of the NP. Hence, [23] claims that syntactically "... complements are classified as obligatory or optional according to whether their deletion makes a sentence ungrammatical or not". He explains further that when obligatory complements are not realized, the sentence containing the nouns would be ungrammatical. However, when the complement is optional and not realized, the sentence is grammatical but unacceptable, i.e semantically ambiguous or lacking precision and specificity. Complements are hence, constituents that specify the meaning of a head noun. [24], notes that "... complements... denote grammatical functions or relations" and this "have the same status as the terms like "subject and object". The demand of heads for complements is similar to the rules that apply within a sentence. [24], have argued that the rules of subcategorization that apply to sentences should apply to phrases since their internal structures are alike. Therefore, rules such as that which determines the distribution of NPs in a sentence will apply within the noun phrase structure.

Different NP types demand for different NP positions like subject or object of a case assigner and may also demand for antecedent based on its class. The implication of this to nouns and their complements is that the different head noun types will demand for different positions, like head-initial position or head-final position. The concept of head as it relates to this study is explained by [25], which describes the head as the constituent whose distribution is the same as that of the resultant construction, the other constituents being modifiers. For instance, the phrase, 'the pen on the rack in the room', has the 'pen' as the head noun with 'on the rack in the room', as its complement. The head noun 'pen' is a headinitial noun.

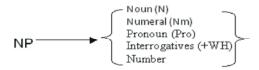
The Constituent Structure Analysis of Mbaise-Igbo Noun Phrase: The noun alone is the head element, without any modifier or qualifier. It can be a single noun or anything which can serve as the head/noun, like (a) proper names -Ókéréké, Àdá, Àbá, Port Harcourt, etc., with the following rule: NP \rightarrow PROP NOUN or

(b) as a common noun: NP \rightarrow Noun (N)/ (n) as in: book, chair, hand, etc. A noun could be simple, complex or compound. The complex or compound nouns are the derived forms.

The Noun Phrase (NP) contains a head element realized as a noun and optionally one or more dependents, (specifiers-modifiers/qualifiers), hence the form: $NP \rightarrow N...$

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The norminal categories include the nouns, pronouns, numerals, numbers and interrogatives/+WH-words, each of which can form a noun phrase; summed diagrammatically:



A noun can take as many dependents as possible. The modifiers identified include - adjectives, demonstratives, quantifiers, numerals and pronominal modifiers. The modifiers/specifiers can occur before or after the head noun in some phrases. The heads could be concrete or abstract and take their specifiers to match semantically and syntactically with head element as in:

2. (a) i. ńrí ú m ú áká 'children's food' ii. ńrí ó k ú k ó 'chicken feed' (concrete heads)
i. Áj ó nwā (bad child) 'bad child' ii. Áj ó ó h ì à (bad bush) 'bad bush' (abstract heads)
(c) i má Àdá (beauty Ada (poss.) 'Ada's beauty' (d) ii 'nkè àny ì (own our) 'our own'(possession /associative)

The Noun with Adjectival Modifier:

(I) Some that follow the head noun (i.e. post-head): they are 'ố má' 'ố chá' 'ójì/óji□', 'ố jố □',
(ii). Some of those that occur pre-head are áj 'bad', úkwùlùùkwù 'massive/big' and ézígbó, 'quality of being good', but 'úkwùlùùkwù', 'big/massive', can occur both pre- and post-head.

Examples:

3. (a)	nwókō ^ó mà	(b)	nwá_à ?´j?`o	(c)	áj? m´ma`d?`
	man good		child bad		bad person
	'good man'		'a bad child'		Bad person
bi	wùlùùkwù úyò g/massive house /building ig house'	(e)	úyò úkwùlùùkwù house /building big/massive 'big house'	(f)	ézígbó m'ma`d?` good person 'a good person'

The structure of the NP with adjectival modifiers can be rewritten as follows-:

 $NP \rightarrow N + Adj$. or $NP \rightarrow Adj + N$, diagrammatically represented as follows:

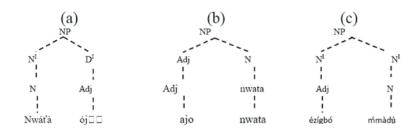
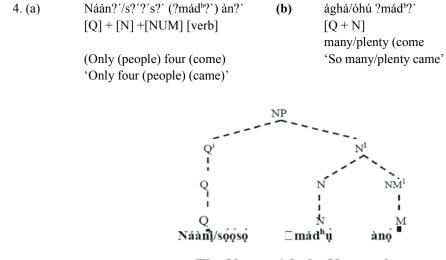


Fig. 4:

Náàn?'/s?'?'s?`, 'only/alone', ?'f?'d^h?` 'some/few'', can occur before or after the noun/pronouns they modify. ?'t^h?'t^h?' 'many several' and ághá/óhú occur only head-initially, while 'dùm'/ lí?lé, ?chá (all), occur head-finally. Only plural pronouns take quantifiers in Mbaise.

Examples:



The Noun with the Numeral

Fig. 5:

The Noun with the Numeral: The numeral is one of the nominal elements in Mbaise-Igbo. Examples, ótù, áb?'?' 'two', àt?' 'three', ìrí 'ten', ìrí áb?'?' 'twenty', iri àt?' 'thirty', nàrì áb?'?' 'two hundred,' etc. Numerals are words denoting number (Figure) and quantity. They are used in counting as well as modification of some nouns. Numerals appear in cardinal and ordinal forms. A cardinal number shows quantity rather than position. On the other hand, when ordinal meaning is needed, both noun and numeral change their tones in accordance with the tone rules. Ordinal number shows position rather than quantity. Here tone plays a significant role in distinguishing the ordinal and cardinal numbers semantically.

Examples $1(a) \rightarrow (b)$ shows cardinal to ordinal:-

5. (a)	úyò + àt?′ (ordinal) →	(b)	úyō āt?? (cardinal)
	(house three		house three
	three houses		'third house'

Structurally, there is no difference between the cardinals and ordinals, but only in the deep structure thus: (cf. 5.(a)-(b) above:

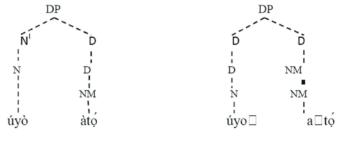


Fig. 6: (a)

It is observed that the difference between the ordinal and the cardinal is in tone, but structurally, in (a) the numeral is the modifier, while in (b) the noun modifies the numeral.

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Associative constructions change their tone pattern according to the tone rules when ordinal meaning is being expressed and retain them when cardinal meaning is being expressed (Emenanjo 1978.40). Generally, numerals come after the noun in Mbaise-Igbo phrase structure as in the example below:

?mád?` áb?`?`/át?'	?mádū ā b?`?`/āt?′
[NOUN+NM]	[NOUN+NM]
person two/three	person two/three
Two/three person	third/second person
	[NOUN+NM] person two/three

But there are some few exceptions where the numeral comes before the noun (pre-head). 'Ótù 'one', '??g??/óhū' 'twenty', nàr?' (hundred) or ótū nàr?', púkú 'one thousand' 'one hundred' púkú 'one thousand', ?dè 'one million', occur, before the noun and at that instance they form heads of the syntactic units where they are found.

Examples:-			
7. (a)	ótù ?mád ^h ?` / ónyé(b)	(c)	?´g? ̄?mádʰ?`
	NM+NOUN(COMPLEMENT)		NM+NOUN(COMPL)
	'one person'		'twenty people'
(b)	?´g? ̄?mádʰ?`	(d)	Nàr?` ?mád ^h ?`
	NM+NOUN(COMPLEMENT)		NM+NOUN(COMPLEMENT)
	'twenty people'		'hundred people'

These numerals ótù 'one', ?'g?^{-/}Óhū 'twenty', nàr?' 'hundred', ótù nàr?' 'one hundred', púkú 'thousand'/one thousand', ?dè 'million/one million', can stand alone as nouns and can also come after some other nouns as modifiers. Considering the syntactic and tonal behaviour of these lexical items, it can be argued that they are nouns; since they are heads of syntactic units where they are found, yet they are numerals since they are used in counting. When they are heads, any other element following them, is performing a modifying function as in cf. (e):

ótù nàr?` ?'m?' ákw?'kw?' (□mádʰ?`) NP? NM+ NM+ NOUN (COMPLEMENT) (one hundred children book) 'one hundred students'

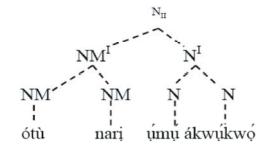


Fig. 7: (cf. 7(e)

Complementation and the Position of some Attributive Adjectives and Numerals: The position of some adjectives like 'ájo/?'j?'o' called "attributive nominals" [25], has made the position of the head seem to be varying between head-initial, medial and head-final positions in Mbaise-Igbo. The adjectives identified in Mbaise-Igbo include-ájo/?'j?'o,'bad' ézígbó 'good' úkwú 'big' úkwúlúkwú (ńnúkwú) 'massive', ógólógó 'tall', ?kp?'?kp?' 'short', ?'káláká 'long', ?'ma' (good) ?'cha' (white). Some of these adjectives – ájo 'bad', ézígbó, úkwúlúkwú (ńnúkwú) occur at the head-initial position only úkwú)

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'massive', ógólógó 'tall', ?kp?'?kp?' 'short', ?'káláká 'long', ?'ma' (good) ?'cha' (white). Some of these adjectives – ájo 'bad', ézígbó, úkwúlúkwú (ńnúkwú) occur at the head-initial position only. These researchers argue that these are attributive adjectives rather than "nominals" [26], but agree with [27] that as attributes, they require complements to make their meaning definite. This, according to [28], is because "dependence on complements is the characteristic of all heads that are abstract and attributive in nature".

Examples taken from Mbaise:

8.	(a)	(b)

Ájo ńh?	ézígbó ?mádh?`
Bad thing	good person
'bad thing	'good person

Similarly, these numerals ótù 'one', ?'g?⁻/o'hu⁻ 'twenty', nàr?'' 'one hundred', (numerals), appear head-initially as follows:

(d) òtú ónyc (one person), ?'g? ?mád^h?` (twenty/ people/person(s)', /nàr?` ?mád^h?` hundred

As heads, òtú 'one', ?'g?⁻ 'twenty', nàr?' 'hundred', respectively, requires the presence of complements as meaning specifiers. Consequently, they require obligatory complements even when they head NPs. In other words, when they occur head-initially, they function as heads rather than modifiers. This is in line with [29] argument that in Igbo all the head categories are given and other subsequent adjunctions or associations provide additional information about the head, the nature of the head notwithstanding, adding that "the additional bit of information could be so closely related to the head that it becomes inseparable from it grammatically", in this case, i.e. (the additional bit of information) "is subcategorized as part of the meaning of the head". Hence, the argument here that these attributive adjectives are by their function and place of occurrence heads, while the elements following them are complements [30]. (For more information on the occurrence of attributive elements vis-à-vis the head, see the argument for determiner phrase (DP). The relationship between the NP and the complement is represented, thus:

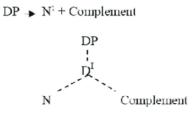


Fig. 8:

For the ease of classification, all modifiers have been classified as determiners, hence, the relationships:

 $\begin{array}{l} DP \rightarrow N^1 + D^1 \\ DP \rightarrow D^1 + N^1 \end{array}$

Constraints on the Analysis of the Mbaise-Igbo NP: The major constraint for now is to describe the varying position of the head of the Mbaise-Igbo noun phrase, as shown in the relationship between ájo 'bad' and the head element. Some other elements like - ézígbo' 'a state of being good', úkwúlúúkwú (ńnúkwú) 'a state of being big/massive', etc., also occur in the same initial position as ájo. These occur before the noun and serve descriptive function as adjectives, but differ from adjectives by causing tonal changes in elements occurring with them in associative constructions, making their description in between nouns and adjective, but more of adjective for their attributive function.

Examples:

9. (a) ézígbó + ńh?' → ézígbò ?h?'	(b)	ézígbó + ?mádh?` → ézígbò ?mádh?` 'good person'
	'good thing'		
(c) 1	úkwúlúúkwú + ńh?′ → úkwúlúúkwū ħh?′ 'a big thing'	(d)	úkwúlúúkwú + óbódó → óbódō u kwúlúúkwú 'a big place/town'

Likewise ?'f?'d^h?' (a few) and ?'t^h?'t^h?' (many), both quantifiers, occur head-initially with a noun following them or the can follow a noun as some data have shown and at times stand alone as nouns. In the same vein, some numerals like ótù 'one', ?g?⁻/óhū 'twenty' nàr?' 'hundred' ótù nàr?' 'one hundred' occur only head-initially, with another noun following and they can also stand alone as heads. To capture some of the flexibilities encountered in analyzing the relationship between the noun and other modifying elements, the researchers therefore adopt the Determiner Phrase (DP), whereby all the modifying/qualifying elements are classified as Determiners.

Syntactic Structure of the Mbaise-Igbo DP: This highlights the word-order parameter, which is head-initial. In Mbaise-Igbo, the noun, number and adjective can occupy the same syntactic position in a sentence. For instance, in an NP, each of them can occupy the complement position. These are in turn expanded in the X^1 as follows:

 $DP \rightarrow D^1 + N/N^1$

 $D^{1}/D = Adj.$, Poss / Genitive, Démonstrative, Quantifier, Numeral, Plural marker or Noun (in associative construction). Applying GB in the relationships between the head noun and

Nominal dependents in complémentation using the DP as in: 'a'j? nwa'ta' ógólógó', we get:

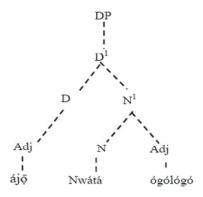


Fig. 9:

When the modifiers include a demonstrative, the demonstrative takes the last position on the string as in: 'nwáànyi óchà ómà úkwú áh?''.

CONCLUSION AND RECOMMENDATIONS

The paper has been a description of the processes of complementation in the noun/ noun phrase with a particular emphasis on some specifiers (attributive adjectives, numerals and quantifiers), It can be observed that complementation is part and parcel of the noun/ noun phrase in Mbaise-Igbo, but there are flexibilities in the position of some of the specifers with the head element.

Findings: Some attributive adjectives, numerals and quantifiers having varying positions in the language, posing a challenge to strictly head-initial stance of the language. Tone is a determinant factor in associative

constructions involving complementation. Theoretically, the determiner phrase (DP) is relevant in capturing the flexibilities in position of occurrence It can be further observed that the determiner phrase goes beyond mere modification by the specifiers, but a concept that sums up all modifying elements in Mbaise-Igbo.

Recommendation: The researchers recommend adoption of the determiner phrase (DP) in the in place of the NP, as an embracing term to capture the flexibilities in the place of occurrence of the modifying /qualifying elements of the noun phrase. and further research on the DP.

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