DEMystifying the X –Bar Phrase Structure Rule

UCHE OBOKO
Department of English,
Madonna University, Okija,
Anambra State.
Telephone: 08032963920
Email: ucheoboko@yahoo.com

Abstract
The X-bar theory is a major property of natural languages. Often times, the claim of the X-bar phrase rule and the conditions in which it applies makes its explanation and understanding difficult especially to language students. The essence of the paper is to demystify the intricacies in the theory and the notion of bar level and upholds the notion of head as the central idea.

Key words: rule, x-bar, specifier, head, complement

Introduction
X bar theory is the module of grammar that regulates constituent structure. X-bar theory was first proposed by Noam Chomsky and further developed by Ray Jackendoff in 1977. It aims at characterizing a possible syntactic configuration. In interaction with other principles of grammar, X-bar theory determines structural representations. Wilson and Keil remark that syntactic structure is defined in terms of two principles:
i. Constituents are endocentric that is, phrases organized around a head (Projections of heads). In other words, a grammatical construction is said to be endocentric if it has an obligatory head or centre with one or more modifiers such that the head word determines the grammatical class. The implication of this is that an endocentric construction fulfils the same linguistic function as one of its parts. Endocentric constructions include phrases such as:

(a) Noun Phrases as in:
The young teacher
Intelligent students
A beautiful wife

(b) Verb Phrases as in:
Can Swim
Has been Praying
Will be held

(c) Adjectival Phrases as in:
Quite sad
In a black suit
Along the road

They are called endocentric because they are made up of a head word and other modifiers. Tarni remarks that there are times when there will be some confusion in deciding the headword (130). He gives blackbird and redcap as examples. He goes further to say that in blackbird; bird is the head, so it is clearly endocentric. But redcap is not a kind of a cap which is red in colour but a person who wears a cap of the specified colour. He further argues that since the construction is a singular noun, then, the construction is acceptable as endocentric (130). The headword which determines the grammatical class may or may not have an attribute. If the headword involves an attribute it is attributive or subordinate. If the headword does not have an attribute it is called a co-ordinate construction.

Subordinate Constructions
Subordinate Constructions have only one head. The head is the major word and other words in the construction are subordinate to the main word.
Examples include:

1. The oldest *man* in the world
2. As *bad* as that
3. Better *idea* than yours

**Co-ordinate Construction**

A construction is said to be co-ordinate when it involves two or more words with similar or equal status and none is dependent on the other for its meaning because either of the words can serve as the head. For example:

1. Men and women in the village
2. Buses and cars on the road
3. Doctors and nurses in the hospital

ii. Constituents are built up according to the Schema as shown in the diagram below

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XP
  Specifier
    X^1
  Complement
    X^0
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A head $X^0$ (a word or a possible abstract-morpheme) combines with one maximal projection, its complement, to form the intermediate projection. $X$ ($X - \text{bar}$) or $X$. $X^1$ combines with another maximal projection, its specifier to form the maximal projection represented as $XP$, or as $X$ ($X$-double bar) or as $X''$. The variable $X$ has two syntactic categories:

1. **Lexical Categories** as:
   a. N (noun)
   b. V (verb)
   c. A (adjective)
   d. P (preposition)
2. **Functional Categories** as:
   a. I (infection)
   b. C (complementizer)

The implication of the lexical categories is that the properties of the head percolate along the projection line such that if the head is a V(verb), the projection will be a V(verb) P(phrase). If it is a N(noun) head, it will project to a N(noun) P(phrase) and so on. As shown in these examples:
Noun Phrase

The description of the boy

The description (Head)
of the boy (complement)

Adjectival Phrase

Fond of her

Fond (Head)
of her (Complement)

Carnie observes that in English, almost always (though there are some exceptions) complement PPs take the preposition of. Adjuncts, by contrast, take other prepositions such as from, at, to, with, under, on, etc.) He further comments that though, the test is not 100 percent reliable, it will help language students to tell whether they are complement or adjuncts for the vast majority of the cases (166). Finally, he gives the following illustration to buttress his point:
The book {of poems} {with a red cover}  
Head complement adjunct

*The book {with a red cover} {of poems}  
Head adjunct complement
It is important to point out that the type of specifier that appears in a particular phrase is a function of the category of the head. In other words, nouns collocate with determiners such as the, a, numbers etc. More so, while verbs occur with qualifiers such as rarely, seldom, always, never and others, adjectives collocate with degree words such as quite, rather, very and others.

In English language, the head of an endocentric construction can come after the specifier. Moreover, the complement can follow after the head and finally the head can come after the modifier. This gives rise to the licensing condition for English. The above condition is shown as follows:
1. Heads are final with respect to specifiers (SPEC + N) for example:
   - The man
   - Those chairs
   - One way garage
   - Two dozen roses

2. Heads are initial with respect to complements and Adjuncts (N+Compl) for example:
   - Women with children
   - Men in Colleges of Education

3. Heads are final with respect to modifiers (MOD + N) as in:
   - Tall trees
   - Beautiful women
   - Tall dark contestants

**Divergent Positions on the X-bar Phrase Structure**

Different scholars share different opinions on X-bar phrase structure rule. Wilson and Keil quoting Stowell hold that X-bar theory need not to be committed to the strong claim that all constituents are endocentric (898). Furthermore, Jackendoff maintains that X-bar format was mainly elaborated for the projection of lexical categories (53). He further opines that functional categories (inflectional Morphemes such as the tense and agreement of verbs, or functional words such as determiners or conjunctions) being integrated within lexical projections as specifiers (in a sentence) should be interpreted as an exocentric category, that is, a category without a head or as a projection of the verb (53). In all, Wilson and Keil citing Stowell and Chomsky observe that the X-bar format is extended to all syntactic categories, functional as well as lexical (898). Despite the positions of these scholars, the general notion of x-bar phrase structure remains that the head is an obligatory element in a phrase. Carnie refers to this as headedness (161). He goes further to say that the property is called endocentricity. In addition, Carnie remarks that with the exception of the determiner in the NP rule, all non head material in the rule is both phrasal and optional (161).

**Conclusion**

The paper has tried to demystify the intricacies in X-bar phrase structure rule. The paper shows that the head is an obligatory element of a phrase which can function as heads in nouns, verbs, adjectives and prepositions. It has equally explained that where a complement is found in the phrase, it is a sister to a head which may be a noun, verb, adjective or preposition.

**Works Cited**


