

Syntactic analysis of Arabic adverb's between Arabic and English: X bar theory

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Abstract: This study was undertaken to highlight some linguistic devices of structural and syntactic analysis of multi-position Arabic adverbs, the study offered a syntactic baseline between Arabic and English, the researcher selected six sentences of Arabic and English adverbs, 3 in Arabic and 3 in English, in order to serve the task of analysis and scrutinize some indiscernible adverbs loci of Arabic comparing with one key position in English. The main purpose of this study was to investigate whether the locus of adverbial sentence in Arabic is matchable to locus of English sentence or otherwise. The subject of this study was the flexible position of Arabic adverbs, which may approach in the initial, middle or even end of Arabic sentence. Towards that end, a comparative methodology of the Arabic and English adverbs have explicated some declarative and interrogative sentences from Arabic and its correspondence in English, via adopted chomskyan syntactic theory (Chomsky, 1995, Minimalist Program) with paying heed to the syntactic similarities and dissimilarities of adverbs locus in both systems and delve for the flexible position in Arabic which could change the sentential meaning and the grammatical structure by adopting Chomsky X' theory (1995).

Keywords: Minimalist Program, Syntactic Analysis, Arabic Adverbs, Linguistic Devices, Multi-Positions

1. Introduction

All languages have grammars and all grammars are equal, Grammar is always alike in basic ways, Grammar change overtime and every language has it is own system in the word order or sentence structure. Arabic language is one of the universal languages which have different system comparing with other languages, for instance, Arabic has multiple word order SVO and VSO. This study highlights the Modern Standard Arabic language (MSA), which different from classical Arabic. Hence, Standard Arabic language is the native language for more than 22 countries in the Middle East. It has it peerless characteristic which identifies from further languages. The interesting point herein is that VOS and OVS word order are possible in Arabic language. The MSA language is used in printed books, newspapers, and official documents. Tucker, (2010) gives a full image of Arabic language description such as the words order; which allows the SVO, VSO, VOS, and OVS. Besides, he shows the distinctive features of the Nouns, Verbs, adverbs, Adjectives...etc. Arabic language is rich in the grammatical structures.

1.1. Objectives

Pertaining to the word order of both Arabic and English, This study focus on the Arabic 'Adverbs' loci/positions and how to compare them with English adverb positions using X bar theory. Therefore, this study aims to achieve the following objectives: To compare the Adverb position in both Arabic and English language. Examines the adverbs function of Arabic language in the X' theory. To determine which syntactic theory is relevant to Arabic adverb.

1.2. Research Questions

In order to analyze the Arabic adverbs, the researcher tried to find answers to the following questions:

- What are the positions of Arabic adverbs?
- How could the position of Arabic adverb affect the sentence meaning?
- Which syntactic theory of Chomsky is similar to Arabic language?

2. Literature Review

Most of the linguists and authors define the adverbs and describe their locus in English and Arabic sentences, some of them agreed that adverbs could complicate the sentence structure due to the various positions in the sentence. This complication attributable to syntactical and semantic position, then the locus of adverb may not only change the sentence meaning, but also make the sentence meaningful/meaningless or even grammatical/ungrammatical sentence (Cater1989, Bing 1989, Parrot2000, Green 2004; McCarthy2000, and Raimes2001; Edger 2004, and Celce-Murcia, Hughes 1989). Referring to Greenberg (1963: p 63) cited in (Al-Momani (2010)): "most of universal languages start with principal VSO order have SVO order as a substitute or as the only substitute basic order". Several studies, such as Radford (2009), Travis (1988), McConnel-Ginet (1982), and Jackendoff (1972) have agreed that the adverbs mostly rely on its place in the clause, and that inside specific sentence fields, the adverb is 'movable' under an invariable clarification. Radford (2009), refused the case of probability of multiple positions of adverbs of the same class. Chomsky (1965:103f) noted that there is a close link between passive ability of verbs and manner modification, and added that the verbs which do not get adverbial of manner freely cannot be passivized (e.g. weigh, have, resemble, fit, and marry on the related interpretation), also described that the adverb of manner contribute in sub-classification, a truth which was constructed into his formalization of the passive transformation. According to (Daimi 2001, Fehri 1993, Chalabi 2004) they list some major points related to Arabic language: Arabic is flexible, freelance language, Arabic words are built from the roots ,Arabic is written from right to left, Arabic is an additive and conservative language. Soltan (2009) analyze the distinctive features of imperatives verbs form in Standard Arabic and claimed that the languages that have pre-verbal negation which don't allow negative imperatives while languages with post-verbal negation always allow negative imperatives.

2.1. Theoretical Background

X-bar theory was first proposed by Noam Chomsky (1970). It aims to identify the similar structures among languages. The letter X in the X' theory represents a part of speech which may be Noun (N), Verb (V), adverb (ADV), Adjective (A), Preposition (P), or Tense (T). "All XPs can be broken down into three levels. The XP consists of a specifier, which is basically a modifier, and X-bar. X-bar consists of X (head) and the complement. For example, an NP specifier is a determiner, a VP specifier is an adverb, and an AP specifier is a degree word. X-bar structure is thought to be universal, because it occurs in all languages. The word order is free in Arabic; the word order is not just SVO and VSO. "Arabic language has structure of a nominal sentence of both subject and predicate phrase, with

no implicit verb or copula". Example,
"Al-qamaro mushriqun - The-moon
Glittering - (The moon is glittering)"

The morphological syntactic analysis of Arabic is so complicated compared with other languages. In fact, while expressing the adverb, in English, the adverb occurs before the verb it modifies. Otherwise, in Arabic language it occurs before and after the verb it modifies, which means that adverb position in Arabic language is flexible. As mentioned above, Arabic language is a free word order language; the sentence could have four forms of word order such as:

2.1.1. Example of SVO

The boy speaks quickly
Al-waladu Yatakalm Besora'a
الولد يتكلم بسرعة

2.1.2. Example of VSO

Speaks the boy quickly
Yatakalm Al-waladu Besora'a
يتكلم الولد بسرعة

2.1.3. Example of VOS

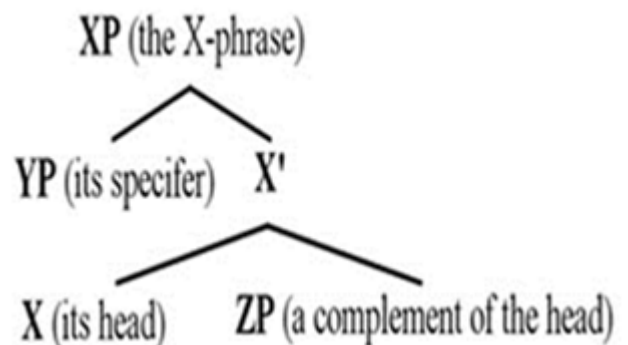
Speaks quickly the boy
Yatakalm Besora'a Al-waladu
يتكلم بسرعة الولد

2.1.4. Example of OVS

Quickly speaks the boy
Besora'a Yatakalm Al-waladu
بسرعة يتكلم الولد

3. Methodology

Six kernel sentences have been tested in this study, three sentences written in standard Arabic language and their correspondence in English, and three sentences written in Standard English and their correspondence in Arabic. The study adopts Chomsky X-Bar Theory in order to display the syntactic structure and semantic meaning via drawing the tree diagram/ cartography and explicate the sentence structure. The study focuses on the SVO order of Arabic and English language.



4. Data Analysis and Findings

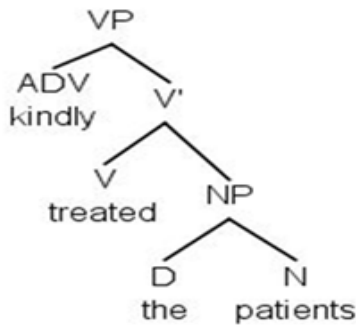


Figure 1. Parsing of Arabic sentence

Arabic sentence: بلطفً مع المرضى تعامل
 Arabic transcriptions: ta3amal be-lotff ma3 al-mardah
 English translation: kindly treated the patients (past tense)
 Literal translation: treated kindly the patients

Argument and Thematic Structure:

Ta3amal:
 [v]: [NP1, NP2]
 <Agent, theme>

The verb (ta3amal) merges with the NP (al mardah) to form the V' / V-bar (ta3amal ma3 al-mardah) in order to adjoin or merge the adverb (kindly/ Be-lotff) with the verb to form VP (Be-lotff ta3amal ma3 al-mardah) so in this sentence the minimal projection is the NP (al mardah) whereas the maximal projection is (Be-lotff) hence, in this sentence we can see that the position of adverb in English come before the verb it modifies and sometimes could be at the beginning or the end of the sentence, whereas; in Arabic the adverb position/locus is coming before or after the verb, also the beginning or end of sentence. But English language shows reversing which meant the English sentence as shown above should start with the ADV 'kindly' regardless the sentence is meaningful or meaningless.

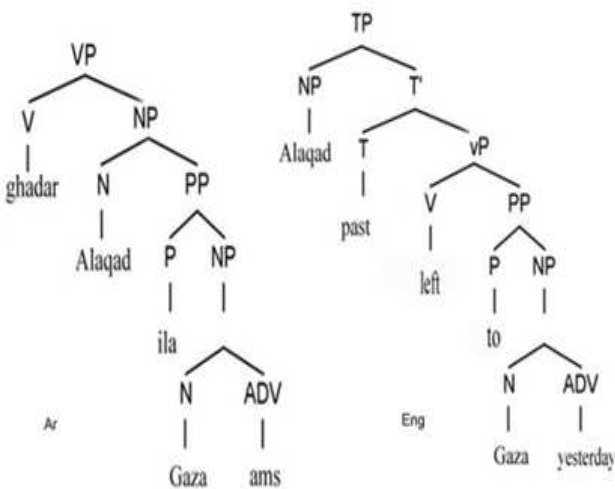


Figure 2. Structure Analysis of Arabic & English adverbs

Arabic sentence: غادر العقاد الي غزة امس
 Arabic Transcriptions: ghadar alaqaq ila gaza ams
 English translation: Alaqaq left to Gaza yesterday
 Literal translation: left alaqaq to gaza yesterday

Argument and Thematic Structure:

ghadar: [v]: [NP1, PP1]
 <Agent, goal>

The Noun N (Gaza) merges with ADV (ams) to form NP, that NP adjoins with P (ila) to form PP (ila Gaza ams). Then the Noun (Alaqaq) merges with the PP (ila Gaza ams) to form the another NP (Alaqaq ila Gaza ams). After that, the Verb (ghadar) determines gender (male) and which embodied tense in Arabic language, will merge with NP to form VP with agent or specifier (Alaqaq) to get the final form of the sentence as shown above, Ghadar Al Aqad ila Gaza Ams, which match in English Al Aqad Left to Gaza yesterday. Notwithstanding, the English version of the same sentence shows some syntactical divergences, which begin with subject and followed by verb, headed by Tense Phrase, despite, being started with Noun, thus the parsing of the English version is partially different than Arabic one, particularly in the word order and systematic meaning, whereas; Arabic version shows stress on the verb or action (ghadar) itself, whilst; English one stressed on the part of the subject himself.

However, the Arabic kernel sentence has headed with VP (verb phrase) proceed with NP, PP, and NP. But the English sentence headed with TP (tense phrase) proceed with T', VP, PP, and NP.

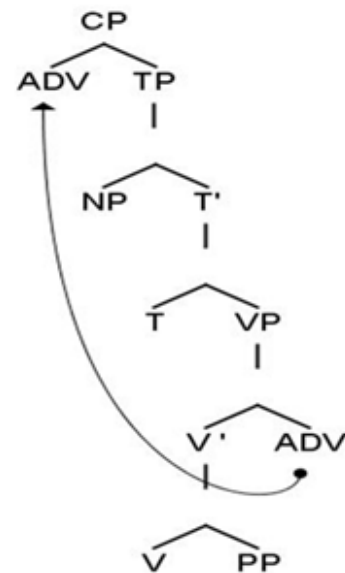


Figure 3. Structural relation of Arabic sentence

Arabic sentence: الولد ذهب الي المدرسة مسروراً
 Arabic transcriptions: al-waladu Zahaba ila al-madrasah masroran
 English translation: The boy joyfully went to the school (past tense)
 Literal translation: the boy went to the school joyfully

Argument and Thematic Structure:

Zahaba: [v]: [NP1, NP2]
<Agent, theme>

The verb (zahaba) merges with the PP (ila al-madrasah) with the V to form the V' (zahaba ila al-madrasah) then adjoins the adverb (happily) with the V' to form VP (zahaba ila al-madrasah masroran) after that merge the VP with the T (past) to form T' then adjoins T' to The subject (al-waladu) NP raises or moves to spec-T, forming TP (al-waladu Zahaba ila al-madrasah) then move the adverb from bottom to top to merge with the TP to form CP (al-waladu Zahaba ila al-madrasah masroran), (The movements are shown using arrows). The tri-consonantal core verb is typical of the Arabic linguistic. Here is the use of various consonants devoted to a root verb to generate a diverse sense. For instance, in English we would say "he wrote" and "he dictated." These are dual entirely not the same words, but the root verb is manipulated to form one word in the Arabic language. So the English word "He wrote" in Arabic is "Kataba," and "He dictated" is "Aktub", which is vary from English. The Arabic language varies critically from the language of English and other Latin-based languages. There are specific grammatical divergences, the readers must know before commencing to understand the language. These clues will assist to comprehend much structure of the language.

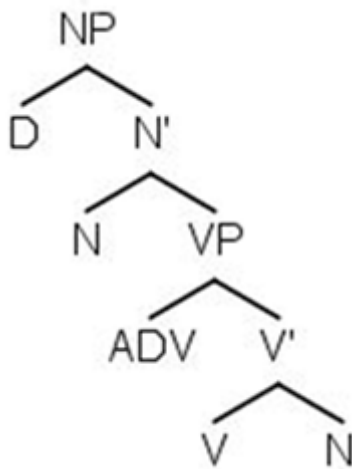


Figure 4. Structural Analysis of Arabic adverb

Arabic sentence: ضَرَبَ طِفْلٌ زَيْدٌ مُؤَاخِرًا

Arabic transcriptions: darab tefel zaid moakharan
English translation: A child lately hit Zaid

Literal translation: hit a child Zaid lately

Argument and thematic structure:

darab: [v]: [NP1, NP2]

<Agent, theme>

Therefore; note how the nouns Zaid and child has being made as subject, object and part of a possessive phrase, also we can see that the three sentences focused on Zaid as a dominant by noticed the movable locus of the Arabic adverb (lately) مُؤَاخِرًا while keeping the same structure of

Arabic sentence but the English translation got different, all what happens just by shifting the dominant locus from state to another. So who unacquainted with the Arabic language rules will not notice the difference among the above sentences, which every sentence from the three have different meaning attributable to (nominative, accusative and genitive) مرفوع , منصوب , مجرور regarding to Arabic parse structure. Here, we show another some examples of Arabic adverbs and how can come up with Multi-positions in the sentence structure.

We should know that a noun اسم in Arabic language spans to cover more than a simple noun, it extends to definition of noun اسم, pronoun, ضمير adverb, حال, adjective, صفة; instead of saying that a noun goes into a certain grammatical state, some examples from Arabic language; employ the grammatical state on these 3 words will see the different meanings comes up with translation for these sentences, so from the below; some example we will see that Arabic language has no Subject- Object order , as in English.

- ضَرَبَ طِفْلٌ زَيْدٌ مُؤَاخِرًا ضَرَبَ طِفْلٌ زَيْدٌ مُؤَاخِرًا
1: Zaid hit a child lately 2: A child lately hit Zaid
ضَرَبَ طِفْلٌ زَيْدٌ مُؤَاخِرًا
3: Lately Zaid's child hit

The study finds out the following:

Position of Arabic adverbs is more changeable than English in terms of tense and manner. Arabic sentences have multiple meaning in relation to the adverb locus which leads to nominal, adverbial or adjectival sentence. Arabic has less number of irregular verbs which are not utilizing auxiliaries like "is" or "are" in English. The subject locus of Arabic in X-bar theory is VP-internal while that of English is VP-external. Arabic sentence could have more than one meaning pertaining to the adverb position and every sentence had different meaning, in contrast to English. As can be seen from the above examples of this study, the placement or position of the adverb in Arabic is not easy to distinguish due to Arabic adverbs have more than one position and sometimes relevant to adjective.

5. Conclusion

The results of this study found that applying X-bar theory on Arabic sentences shown changeable positions of adverbs between Arabic and English. Also, it shows the subject position of Arabic in X-bar theory which is initially. Arabic language has a lot of transferable constituents. In this paper, the order of the sentences easily changes from SVO to other states. The applications of X bar theory on Arabic language sentences show the differences and indiscernible constituents structures among languages. The basic claim is that human are born with linguistic knowledge like what captured in X-bar theory, in regards to some kernel sentences explained above, there are tense and meaning divergence between English and Arabic sentences which lead to fuzzy meaning or meaningless sentence

somewhere which has been explained by the syntactic cartography. More newly, literature has arose that offers contradictory findings about Arabic which is elastic but at the same time conversant language, Arabic has a scanty of irregular verbs which are not utilized such as "is" or "are" in the tense present, subtle modifications in the elementary connotation of a verb are emerged by adding to the root.

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