

COMPOUND WORD FORMATION IN ARABIC LANGUAGE

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Abstract:

The primary aim of this study was to describe compounding structures as they exist in Arabic (CA), something to which traditional Arab grammarians have made only vague reference. The Arabic Compounds (ACs) were selected as one area of study because as far as I know, previous research on this topic has not been sufficient. It was therefore decided to examine the understanding of the scope and the flow of the Arabic language specifically from this angle.

The methods employed in the collection and analysis of data were imported from research done in the field of theoretical linguistics mainly in Arabic, English and in few occasions in German.

The data on which the research was based required the survey of the most important references in both Arabic and English.

This study will therefore examine the variety of ACs and it will suggest, that the phenomenon of (نحت), a grammatical process which has its roots in Standard Arabic (SA) is also a type of compounding, (compounding by omission).

It will also suggest that the frequency of usage of different compounds in Arabic will continue to increase as a result of the importation and consumption of words from other languages for example technical jargon, product names and media terminology. Examples of the above will be provided.

It is hoped that this will help to establish cross-linguistic similarity/diversity rules which may possibly serve the broad influence of the Universal Grammar (UG).

Keywords: Compound Word, Arabic Language, Media Terminology.

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Introduction**Basic Concepts**

The usual way, in which compounds are classified, is by identifying the function they play in the sentence.

Arabic compound words however, can be concatenated from two roots or more; they can also be formed from roots and words, and from words and roots. The methods, which will be applied throughout the course of this study.

In formulating the examples used in this study, (X) and (Y) variables are chosen.

The way compounds are formed in Arabic is still a subject which has not received the kind of rigorous scientific research which has been applied to other major languages, particularly English.

My intention, therefore, has consistently been to analyze the structure of compound words in Arabic as they exist.

On the Arabic Sentence

VSO is the usual word order in Arabic sentences. It is found in all sentences, interpretations or derivations. It occurs in both embedded and root sentences and in transitive and intransitive constructions.

In this study, I will refer to Modern Standard Arabic mostly as Arabic. Occasionally, I may refer to it as Modern Standard Arabic (MSA) or Standard Arabic (SA) to indicate today's official Arabic, which has some modern ways of expressing things and also many new vocabularies, particularly in the technical and scientific domain.

A great number of new words have emerged and been invented in order to participate in and understand what is going on in the world outside the land of Arabic. But it must be noted that the vocabulary of MSA is by no means standardized and its scope at times difficult to circumscribe. This results from the very character of MSA. Arabic morphology, phonology, and syntax have remained relatively unchanged from earliest times, this is also true of much of the vocabulary.

Here traditional adherence to ancient linguistic norms, especially to the *Holy Qur'aan* has had the effect of preserving the language intact over the centuries. (المعتوق، 1996، ص، 126)

But as vocabulary and phraseology must adapt to the new and ever-changing requirements of external circumstances, this situation is more prone to change.

Literature Review:

In exploring the history of Arabic language, we find a somewhat unusual phenomenon. This is the spread of a language, which was practically unknown three hundred years before the birth of Islam in the seventh century AC; which, all of a sudden, within a very short period; the language appears and reaches the peak of its excellence. The language seems to have no childhood, or at least a comparatively short childhood.

The main point to be made from the survey of the literature is that there is not enough information about the formation of compounds in Arabic. All of these studies are insufficiently detailed and informative, but they do allude to some issues that will be very relevant to the present study.

Data of the Study:

The data is taken from a number of different textbooks, the majority of which are written in Arabic and English. A great number of these textbooks were concerned with Arabic syntax and morphology.

Some of the views on ACs of old Arab grammarians and modern ones as well as non-Arab linguistic scholars will be considered.

The majority of Arab grammarians did not build special forms in order to form compounds, and also have not provided any suggestions concerning the question of how the compounds might be dealt with morphologically and phonetically.

Apart from representing 'نحت' examples, an explanation of the grammatical structure of these compounds and any mention of the importance of productivity was completely absent.

Only one detailed grammar references seem to include a treatment of the compounding under the name of 'المركبات' (Compounds). It is where compounding receives some attention but theoretical information is absent.

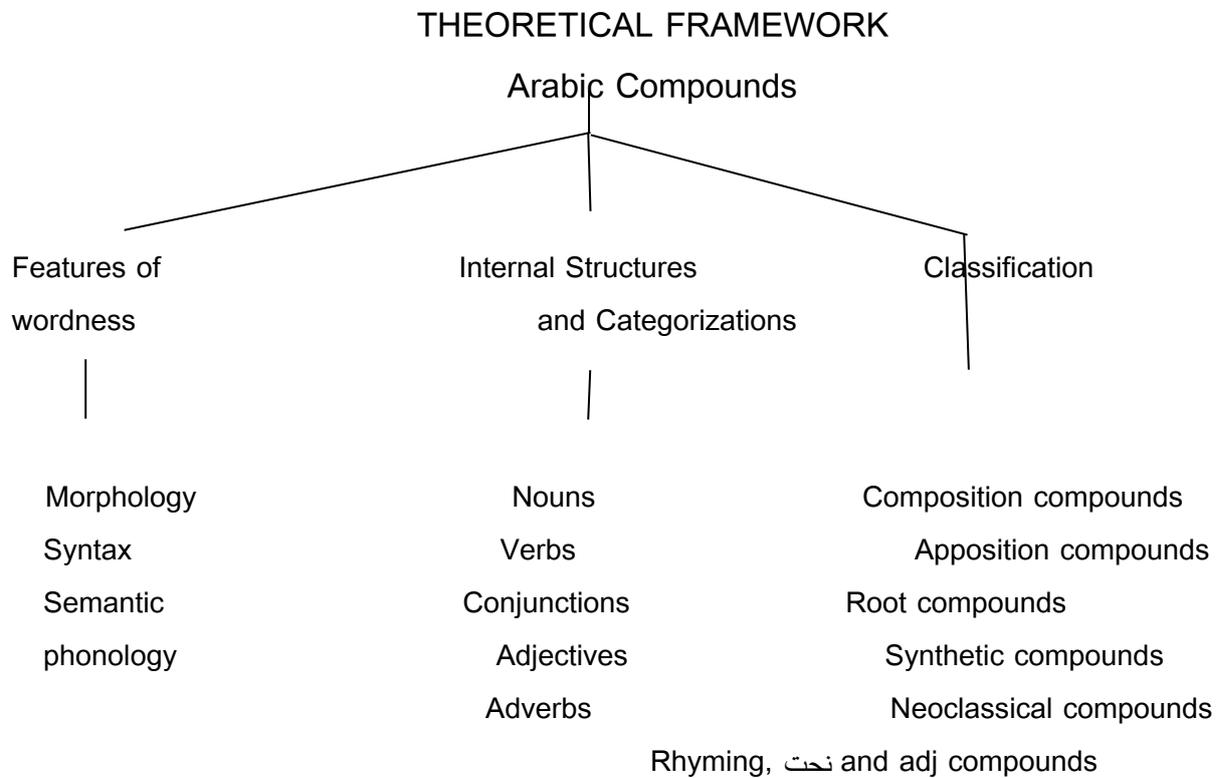
1. Identification of the problem:

As we have already shown, Arab linguists recognized the presence of compound structures. However, they ignored to construct clear theoretical rules.

(عمر، الرضي على الكافية، 1978، صص، 129-146)

1. Theoretical Framework:

The following is a represented model in studying ACs and determined their different categories.



1. Aims of the study:

In relation to describing the formation of compounds, I hope to examine the existence of variation in the usage of the compound formation.

The aims of the present study could therefore be explained in the following points:

- (i) To create another base for word formation, which the Arabic lexicon lacks.
- (ii) To develop a classification system for the compounding process in Arabic words that are based on Arabic and enriched with the modern linguistic perspectives.
- (iii) To explore the abundance of compound words in Arabic, in the light of the descriptions of classical and modern grammarians and linguists.
- (iv) To test the productivity of ACs and to clear the way for future research and to explore the practical applications of this phenomenon in generating new Arabic terms particularly in the scientific, medical and technical subjects.

Arabic Compounds

To begin with, simple concatenations of words will be considered. These tend to be found in different lexical references.

Arab grammarians have been concerned primarily with the determination of the proclamation case, the exact grammatical analysis of the word in the syntax and with the description of sentences. Hence, when they observed the compounding process, they saw it as secondary to their main concerns.

This aside, to understand the basis of the compounding process in modern linguistic theories, it must be noted that much of the theoretical work concerning this subject has been based on English. (Spencer, 1991, p, 309.)

The superficial approaches of many researchers of Arabic compounding and the premature conclusions, which have been drawn, have led to the general consensus.

It has been claimed by Faasii, that the presence of Arabic compounding system is quite marginal and, confined only to *Naht*. (Faasii, 1993, p, 13.)

Basic concepts

It appears from previous work, that compounds in general have two sets of characteristic properties. The first brings compounding closer to syntax and the second closer to word formation. (Spencer, 1991, p, 310.)

"Compounding resembles syntactic processes in that it is typically recursive. The second point is that compounds have a constituent structure, which in general is dependent on the way the compound is built up. E.g.

(a) هيئة [صحة الطفل]

The Child health organization

لجنة هيئة [صحة الطفل]

The Child Health Organization Committee

(c) مكتب لجنة هيئة [صحة الطفل]

The Child Health Organization Committee Office

The above examples show that the Arabic compounds can be described as generative ones, which can accommodate many further possibilities.

The reason for this is that simply adding one noun to another compound noun, and so on can form a compound noun.

The second characteristic is the compound's possession of a constituent structure.

The Internal Structure and the productivity of Arabic Compounds

Categorization

The word category is used to describe (nouns, verbs, adjectives, adverbs, etc.), as lexical items. The term *listeme* is used to highlight the fact that words in this sense must be listed in the lexicon, because they have idiosyncratic properties (not governed by general principles) that native speakers must simply memorize. Syntactic phrases, by contrast are governed by general rules and are accordingly subjected to grammatical analysis, so that there is no need to list syntactic phrases in the lexicon, unless they are fixed ones.

Compounds however, may not follow this rule, since in many examples of composition compounds, words can be found, the meaning of which can be inferred from the meaning of their parts. They may be found in any modern lexicon of any given language. E.g. رجل الشرطة 'policeman' (X)n+ (Y)n _____ (X+Y)n

Here we will use the term "نوع", which literally means "category and type" to indicate Arabic listeme.

In the following section, we will examine the different categories of Arabic compounds. The Greenberg quantitative method is also applied wherever it is indicated to examine the (R/W) results. The prosodic morphology and Arabic scale are also applied to make explicit the root, skeleton, and vocalic tiers.

Nouns

The following noun category represents the different combinations of different constituents ranging over the category noun:

دار طلاس printing press of talas (X)n+ (Y)n _____ (X+Y)n

This compounding type is quite common in Arabic, and in such examples two words (nouns) the first is a (word) and the second is a (root-word), each from different origins which are combined together to produce one single form of a compound. This compound formation is described in the following Formula:

Formula (2) Word _____ word root

This type of communication has been used by both classical and modern Arabs, but in contemporary Arabic usages, the following combination of two nouns is used more often. E.g. متشائم not optimistic not pessimistic (X)n+ (Y)n _____ (X+Y)n

This compound is carved out of two nouns, the first is 'متشائم' "pessimistic", and the second is 'متفائل' "optimistic". It is quite clear that the elements that are omitted are not only vowels, but also consonants:

علمكشوف openly (X)p+ (Y)n _____ (X+Y)n

This example represents the combination of two different constituents, the first is a preposition and the second is a noun, and this type of combination represents the compound complex, where two words are joined together semantically giving one specific meaning. The preposition 'على' "on" is a dominant figure in relation to this type of complex compounding, also the meaning of such compounds is non-composition.

تحترقوي subclavian (X)adv+ (Y)n _____ (X+Y)n

This compound word is the surface structure of the underlying structure, originally made up of two different free morphemes, the first is an adverb and the second is a noun.

The particle 'ما' "that" plays a major role in coining noun compounds in Arabic:

ما وراء metaphysical (X)n+ (Y)adv. _____ (X+Y)n

ما قبل what is before (X)n+ (Y)adv. _____ (X+Y)n

In the above examples, the compound word is made up of two words, in accordance with Formula (1).

The particle 'ما' "that" acts as a relative noun in the above-mentioned examples, it plays a very significant role in defining this category.

Different categories can be joined together and give aggravated compounds:

حَبِذَا how nice (X)_{v+} (Y)_n _____ (X+Y)_n

This type of compound is made up of two words, the first is a (root word) and the second a (word) which is a noun, in accordance with Formula (1).

In such examples, two different (words) are combined together to form a special type of compound, the first is a verb which is considered to be a (root word), and the second is also a (root word) which is a noun:

بلعوسفلي hypo larynx (X)_{n+} (Y)_n _____ (X+Y)_n

The نحت formation of this compound involves the deletion of two parts of the first constituent, where one of the parts is a consonant. As a result, this compound is a combination of two different constituents; the first is a (part root word), because two of its phonemes are redundant ones, and the fourth root is deleted, while the second constituent is an adverb, which is considered to be a complete word. The formation of these compounds is in accordance with the following formula:

Formula (3) Word _____ part-root word

Applying Greenberg's quantitative method to this compound structure جَمُود is a single compound word (W = 1) that is formed from two roots (R = 2). Thus R/W in this particular example is (2/1 = 2).

Verbs

The following examples are compound verbs:

عَسَعَس darken (X)_{v+} (Y)_v _____ (X+Y)_v

هَلِهَل weave (X)_{v+} (Y)_v _____ (X+Y)

The surface structure of the underlying structure: 'هَل' "to appear" is repeated twice omitting some of its consonants. An application of Greenberg's Method can be used here and the result is a formation of two roots (R = 2). Thus (R/W) in this example is (1 = 2).

In the above examples, a (part root) form is illustrated, where the third root from both words is deleted and the two parts roots are combined to form one compound word, in accordance with the following Formula (5).

These examples highlight Arabic verbs, which are formed from only two roots, with the second root repeated in a form of 'شَدَا' "Arabic mark indicating stress and emphasis", and it can accordingly be concluded that the following is a very productive rule with regard to Arabic verb compound formation:

Formula (5) R1R' 2 (former verb) _____ R1-R2 R1-R2 (new verb)

(R1) indicates the first root and (R2) indicates the repeated second root. We may repeat these two to form a new verb, with similar meaning, or a new meaning.

Examine the following examples:

جَرَجَر dragged (X)_{v+} (Y)_v _____ (X+Y)_v

Here, it must be noted that most verbs like these have several meanings depending on the context.

مَا دَام as long as (X)_{par+} (Y)_v _____ (X+Y)_v

مَا زَالَ not vanished (X)_{par+} (Y)_v _____ (X+Y)_v

These two examples represent two different constituents, the first a (word) type and the second a (root) type, as in Formula (3). However, it should be noted that the meaning of the particle 'ما' "that", is not always the same.

أَنْجَد 'He went to Najd'.

This example represents a type of verb compound which consists of three different components, the first being a (root word), the second a (word) and the third a (part root word), in accordance with the following formula:

Formula (6) Word _____ root-word part-root

Applying Greenberg's quantitative method to this particular example would result in only one compound category (W = that is formed of three roots (R = 3). Thus R/W in this example is $(3/1 = 3)$.

Adjectives

In Arabic, attaching at least two element forms an adjectival compound, as we will see in the following examples. This specific word formation is formed freely to cope with the demand of science and technology. The very high productivity can be assumed to be of this type of word formation to be a consequence of the general use of relational adjective endings. E.g. *تحوصفي* 'morphological change'.

Morphological change has been coined for the occasion to match the need for such word formation.

In this example, we find that the compound consists of two (part words) the following formula describes this compound.

Formula (7) Word _____ part-word part-word

تحتلساني 'below tongue'

This compound is made up of two different constituents, the first part is a (word) and the second is also a (word). It illustrates Formula (2).

برمائي 'amphibious'

This compound represents a composed compound, where two words combine together and no deletion occurs. Here, the rule could be exemplified by formula (1). It can be argued that in such examples the combined elements have some other meaning standing alone, but that when they are joined together, they have a very specific meaning, which is the meaning of the new construction.

فُصَعْمِي 'middle language'

This compound consists of two full word components. The first is a (word); the second is also a (word) in accordance with the productive formula (1).

لا اجتماعي anti social.

'لا' "no" beside its significance as a general negation, plays an important role in coining great number of Arabic compounds. It is used more frequently today than previously, the reason for this may be stylistic, because 'لا' "no" is very common in Arabic. This type of compound is described by Formula (1).

Conjunctions/Adverbs

عندما 'when'

This compound represents the specific and concrete moment in which the action of the main clause, depending on whether the stress is intended for the idea presented by the main clause or by temporal occasion, introduces a verbal sentence with normal word order. Complete examples can easily be found.

لكنما 'unless'

This type of compounding consists of two particles; the first is *لكنما*, which usually acts as an adversative particle. "Arab grammarians, in explaining this particle, present *لكن* as the basic form governing a noun in the accusative".²

This type of compound represents Formula (1).

حينئذٍ "at that time" and حينما "when".

This compound type illustrates the composed compound, where two different words combine together and form a compound word, following the productive formula (1).

طالما "how often" and حالما "as soon as".

In forming such compounds, there is no need to consider the basic meaning of the different constituents, as the new form has its own meaning regardless of the meaning of its different individual elements.

In the previous compounds the first constituent is represented by a verb, while the second is represented by a particle, which also follows formula (1). This process of word combination is productive and in applying it, new compound words can be formed. Eg: ربما "wherefore" and فيما "while".

It is possible to show that the resulting conjunction may act as a main constituent in another compound constructions such as: فيمئذٍ "in case that" and لكي "so that".

The particle 'كي' "so that" and its derivatives introduce circumstances that represent the aim or goal of the action expressed in the main clause. Arab grammarians call those types of particles 'أحرف التعليل' "particles of motivation", a name which does not necessarily always express the actual meaning and value of the construction.

Joining the resulting compound 'كي' "so that" with another particle such as 'لا' "no", we say could easily create new compound forms: لكيلا "in order not to".

Taher, stated that the word kay is a preposition when it prefixed to both interrogative, and infinitive 'ما' "that" and "what". (Taher,1985,p,126).

كَيْمًا [كيما] يكون "So that it is" E.g:

أحسن معاملة الناس كيما تسلم "Treat people well in order to be safe".

لولا 'if not' (X)_{par}+(Y)_{par} ____ (X+Y)_{con}

It is important to mention here that whilst searching for ACs formed by either the particles 'ما' or 'لا', no single نحت compound could be found. This would indicate that a fundamental condition necessary for combining words by نحت, which is that, use of these two particles alleviate the need to omit words or parts of them.

These types of compounding give the conditional sense and also take the future understanding. There are certain elements, which may join 'ما' "that" and might introduce new types of compounds. Some of these words are: 'أَي' "who", 'مَتَى' "when", 'إِذَا' "then" and 'أَيَّانَ' "when".

Although some of the following examples have been mentioned before, they are mentioned here again in order to emphasize that they are represent the total word-ness, i.e. that both constituents are independent morphemes.

حينئذٍ at that day (X)_{adv.}+(Y)_{adv.} ____ (X+Y)_{con}

يومئذٍ at that time (X)_{adv.}+(Y)_{adv.} ____ (X+Y)_{con}

The italicized phonemes in the above examples indicate the presence of 'تتوين' nunnation "insertion of case endings".

منذ since (X)_p+(Y)_n ____ (X+Y)_n

إلى جانب To the side of (X)_p+(Y)_{adv.} ____ (X+Y)_{con}

حينذاك at that time (X)_{adv.}+(Y)_n ____ (X+Y)_{con}

How similar a man in life is to a ship on the waves of the sea'. [(X)par+(Y)par] _____ [(X+Y)con]

To conclude this section, it has been shown that a compound and its internal constituents are all of the same level, and that this level is the (word).

It has also been shown that *maa* with its different semantic meaning plays a vital part in forming such compounds in Arabic.

The more general conclusion that can be drawn from the previous description and examples concerning ACs, is that the word structure rules generating compounds in SA are of a different type from those generating phrase structure.

The syntax of compounds

When it is necessary to say a meaningful thing, sometimes more than words are needed, sentences and phrases are required, in which words can explain the meaning. For instance, the indefinable Arabic word 'بعض' "some" can only make sense if it is put in a certain syntactic frame work

'I need some time'. أريد بعض الوقت

If it becomes when necessary to explain this Arabic example to a non-native speaker, the best thing to do is to point to a semantically matching sentence in his or her own language. For example, speakers of Arabic will learn that in their language, that the pronominal subject of a sentence need not be expressed, while English speakers need to learn that the subject of a sentence is expressed even if it is pronominal.

ACs may be assigned any of the grammatical functions assigned to ordinary constituents in syntactic structure. (أمين، 1956، ص، 396) This can be illustrated by the following:

'what did I say? ماذا قلت

The question whether ACs are proper the domain of case theory, is difficult to answer, both on descriptive and the theoretical level. But some ACs has word internal cases. The above example is a good one, where *مانا* is a compound noun and it is the surface structure of the underlying structure *ما* and *نا*. In this case *مانا* is not a particle but a compound noun which follows Formula (2). Syntactically speaking, *مانا* is the internal subject of the verb 'قال' "he said". (ابن هشام، 1967، صص، 169-170)

Cross-linguistic investigations show that there are some concepts such as the following Arabic structures:

some thing بعض الشيء (X)_n+(Y)_n _____ (X+Y)_{con}

somebody (X)_n+(Y)_{par} _____ (X+Y)_{con} شخص ما

Compounds and phrase

Both compounds and phrases consist of words, so how are they to be distinguished? In what respects are the rules (if they exist in connection with SA compounds) that generate compounds and those that generate syntactic phrases similar, and in what respects are they different?

Are compounds different from syntactic phrases? Orthographic conventions are only of little help in distinguishing phrases from compounds especially in as far as some of the existing compounds are written as one word. E.g.

middle language فصعية

Thus, a compound like 'اطلاس دار' "the name of a printing press" sometimes appears as two separate words 'اطلاس دار', separated by space, and sometimes as a single word 'اطلاس دار'.

Arabic compounds can fall into one of the already recognized syntactic units of a language such as: noun, verb, adjective, and conjunction/adverb. The compounds have the internal structure of normal syntactic units, some of their constituents' forming

conjunctions and when the second constituent is 'ما' "that" or "what", it usually does not form a syntactic unit, but rather the whole structure of the compound will act according to the specific Arabic parameters. Nevertheless, syntactic rules can be applied at the level of the internal structure of words.

Syntactic rules apply to words regardless of their internal structure. The morphological and syntactic characterization of a word is independent of each other, so in the syntax, morphologically complex words do not behave differently from words containing undervived simple roots.

ACs is different from Arabic phrases and this difference lies in the fact that the internal structure of a compound is inaccessible to the rules of syntax. E.g.

هذا برمائي 'this is Amphibia' and هذا ليس برمائي 'this is not Amphibia'.

These types of compounds are like affixed words in English, and they are treated as indivisible units by syntactic rules.

In most cases, syntactic rules cannot manipulate the constituents of compounds, but they can manipulate the words of phrase structure.

The semantic meaning is dependent on the way we look at the word formation, i.e., if it is a compound or a phrase.

In forming Arabic compounds semantics plays a decisive role. For instance, the Arabic phrase 'دار السلام', "room of peace", is understood, and its meaning is clear from the word formation, but دار السلام as a compound does not have any meaning in relation to its constituents.

Adjectival clauses

The process of forming adjectival compounds is quite easy and different examples can be produced. E.g.

البيت الأبيض the white house (X)_n+ (Y)_n _____ (X+Y)_n

الشاشة الفضية the cinema (X)_n+ (Y)_n _____ (X+Y)_n

Annexive composition

It could be said that the 'إضافة' "construct phrase" involves the juxtaposition of two nouns which may have one of a number of syntactic relationships.

Formally, the first, 'annexed' noun must always be grammatically indefinite (lacking a proclitic (أل or an enclitic pronoun); but (عضيمة،، 143، ص.1965) has claimed that "When a single noun is annexed to another single noun, the second noun becomes a vital part for the first, and both nouns become one single noun"

عابد الله (X)_n+ (Y)_n _____ (X+Y)_n and غلام زيد (X)_n+ (Y)_n _____ (X+Y)_n

At first, it appears that the above examples are not real compounds but rather syntactic phrases.

However, when it is understood that all of the above examples actually have one specific meaning i.e., one semantic meaning, they might be re-assessed as compounds, thereby following, unconsciously, Formula (1).

The formation of compound complexes in the form of adjectival and annexed clauses is a very general process, which is used to indicate general meaning, and in many cases a specific meaning, which may in time become, a distinctive semantic word. This indicates that this process is a productive one.

Collocation

Meaning, is the property that each word possesses in its own right, but it is disputable whether a word on its own can mean anything. This suggests that collocation may play a significant role in deciding the meaning of a word. For instance, if we were asked to define the meaning of the two single words *dry* or its Arabic counterpart 'jaaf' we would probably think of collocations such as: 'نهر جاف' "dry river" and 'طقس جاف' "dry weather" which would

prompt the definition (free from water). As we move away from the most common collocations of the meaning of the word 'جاف' "dry", it becomes obvious that the meaning of such words depends largely on its pattern of collocation and is not something that the word possesses in isolation. (Baker, 1994, P,164).

Generally speaking, compound words in syntax behave like simple words: for instance, 'مرج عيون' "name of a City". Both 'مرج' and 'عيون' are free morphemes, but as a whole they are units. It has also been found that compounds in SA may have idiosyncratic meanings.

For instance: 'حيعل', "call to prayer" which is made up of a verb 'حي' "to call" and a preposition 'على' "on". The meaning of the compound 'حيعل' is not intelligible from its constituents. It means 'call for the prayer'.

مرج عيون likewise is not literally a 'مرج' "field" and 'عيون' "eyes", but it is a proper name of place in Lebanon. Such examples are common throughout the history of Arabic.

Discussion and Conclusions

Discussion

Despite the fact that the more words we recognize as part of any given language, the bigger and more open-ended the lexicon of that language will be. It is probably more interesting to recognize which forms are treated as compounds and which, are part of the province of morphology and the lexicon.

The aim of this discussion is to emphasize that word-formation is productive, particularly in the application of compound words, and that there is no limit to the number of potential words in any given human language. "Until recently, word-formation rules have tended to be looked upon as being largely passive, in the sense that they are basically used to analyze existing words rather than to create new ones". (Selkirk, 1982, pp.13-57).

This intention in the treatment of word-formation process may result in an improper study approach, particularly when dealing with structural compounds.

This study has been concerned with the study of the structure of SA with the intention of postulating a classification model. The analysis has included references to Arabic morphology as well as categorization and reference to the productivity of ACs. The results have shown that ACs is a type of word formation, built up of two or more variables, each belonging to any of the word categories: Noun, Verbs, Adjectives, and Conjunction/Adverbs.

ACs may unite with a single word or even with another compound, which is formed of different constituents, in order to form a new compound.

This is very interesting in many ways, since it demonstrates the importance of the ACs in the word formation process, and provides clear evidence that ACs are subjected to the one word-ness consideration.

All of these findings provide consistent proof that compounds in Arabic are not marginal, as suggested by (Faasii, 1993. P,13).

There is a great difference between observing the presence of a linguistic phenomenon in any given language, and in fact examining that phenomenon in a systematic grammatical and linguistic inquiry.

The results also show that the ACs may belong to the category noun, verbs, adjectives, and conjunction/adverbs.

The direct path to producing compound complexes is annexation. However, it does not always produce morphological words. Our results suggest that annexation plays a significant role in determining the two nouns and considering them as one syntactic compound.

It seems that annexation is the halfway point towards *نحت*, where a lighter compound, which may carry the objective features of single-word-ness, can replace two annexed words. *نحت*, as well as composed compounds were shown in this study to be a rich source of word formation in Arabic generating many new compound structures.

Surface structure seems to represent the result of the combination of different constituents by the different methods of نحت. Underlying structure, on the other hand, appears to represent the exact number of contenders and function elements.

We noticed that in the process of compounding new words by omission, a non-specific method of formation seems to be used, where certain consonants and sometimes-whole words (from the original phrase) may be deleted, and new words may be generated. This method, in Arabic, appears to be attributed to a random deletion system. However, there are indications, that compounding by omission is a process, which is influenced mainly by the judgment of experts.

It is quite reasonable to consider the possibility of generating new words out of existing forms, in other words to combine elements, which through نحت are already compounds with other elements to form new compound.

For instance: 'علمي' "linguistically" and 'اجتماعي' "socio-linguistics". These examples illustrate the possibility of applying the syntactic rule to compound formation, and also the possibility of treating these formations as if they were free morphemes.

The noun compounds in this study were found to be the most generative compounds allowing for a free constituent formation, that could not only be (n+n, a+n, p+n, and v+n) as in English. But also (par+n, adv+n, par+p, n+a, n+n+adv, n+n+n, n+n+a, par+par, v+v, p+n+n).

The conjunction compounds, are next most important from the point of view of productivity, allowing for a limited free constituent formation.

The order continues as follows: adjective compounds, verb compounds, and semi-foreign compounds. The so-called semi-foreign compounds were actually nouns which may make explicit an important finding; namely that words imported from other languages can only be linked to nouns.

It is possible to be built because compounding is in principle recursive. Although this is particularly true when dealing with compounding in a compound structure (which was originally built by omission). Together with either a single word, or another compound. It is also true that a context-free word structure rule such as: (n+n) + n is clearly shown in this study to be generative.

The results of this study have also shown that compounds in Arabic may be joined together with or without a hyphen, left as two separate words, or an *atomized* together to form one word (composed compounds and نحت compounds).

Despite the fact that phonologically, all of these compound arrangements are written without spaces between them.

It has been proposed that when applying Greensberg's quantitative method the resulting value does not go above (1.00). Our results indicated that this value may go up to 2, 3, and even 4 in many existing ACs.

Conclusions

To begin with, it has been said here that there is no significant difference between the defining and treatment of compounds by mediaeval Arab linguists and that proposed by modern scholars. But, because the treatment by both parties has been so minimal, there has never been a satisfactory consensus about how to handle compounding formation.

From our findings, we could safely confirm that compound formations in Arabic have a number of features, which make it reasonable to describe them as words, as has been seen in different examples throughout this study.

Generally, the compounds in Arabic should be lexicalized, but because of the absence of specific parameters within which to control them, they are not lexicalized. However, they are subject to the sort of semantic drift associated with stored words, which means that their meaning becomes non-compositional.

Compounds in Arabic exist as nouns, verbs, adjectives, conjunction-adverbs, and as semi-foreign compounds. A wide variety of combinations of the constituents is allowed, forming a compound which may belong to the same or to a different word category from its constituents; verb may unite with verb to form a noun compound.

The constituents of the Arabic compounds preserve their specific syntactic characters according to their location in the sentence. Compounding by omission is, however, the only exception to this rule, because a process of complete union of the basic constituents is established, and the resulting compound displays all the necessary features of one wordness, so that its constituents are completely unaffected by its location in the Arabic sentence, allowing the effect to fall on the compound as one element, according to its position in the sentence.

Although all forms of compounds in Arabic appear to be productive, three levels of productivity have been recognized: productive, semi-productive and rare. The order of productivity of Arabic compounds is as follows: nouns, conjunctions, adjectives, and adverbs.

نحت is widely used, and many old words in Arabic which still exist and are still used, are originally derived from two words, which are still in existence. While it has been suggested that only consonants could be omitted during نحت. The results here provide many examples where even the vowels have also been omitted. It appears that the original purpose of forming words by omitting some phonemes was to unite two annexed words, since most of the forms were originally two words, which were compounded by annexation. Nevertheless, compounding by omission included a wide range of different constituents, such as verb and verb, noun and verb and so on.

Compounds in Arabic may themselves become involved in the process of word formation, joining together either with a single word or even with another established compound to form a new compound. This provides substantial proof that compounds in Arabic are being considered as one word.

The situation with Arabic rhyming compounds is identical to English in that, normally the bases that are combined to form a compound are autonomous words. The possibility of their occurring as independent words is not a pre-requisite that all bases in compounds must satisfy.

This study proposes a possible role for compounds in Arabic, and exposes some of the characteristics of this kind of word formation, which may be developed and processed in order to establish an Arabic word formation battery that may be useful in lexical and syntactic application in Arabic.

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