



Linguistics

The Multifunctionality of a Morpheme Proposes its Morphosyntactic Features and their Specifications: Feature Matrix

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A B S T R A C T

Multifunctionality is a cross linguistic phenomenon. It refers to the linguistic capability of a linguistic form to manifest itself in different syntactic structures that result in different syntactic functions. Treating multifunctionality from a generative perspective, the paper focuses on the different functions of the Hijazi Arabic (HA) *maa* and contributes to the HA literature by describing these different functions and claiming that they are not instances of homonymy, but of multifunctionality. Those different functions are governed by the different syntactic environments that *maa* occurs in. Its occurrence in multiple syntactic environments suggests that *maa* has a feature matrix that includes its morphosyntactic features and their specifications that express the appropriate use and interpretation of a given structure. The findings show that *maa* may function as a negative particle, emphatic particle, relative pronoun, infinitival particle, conditional particle, interrogative particle, exclamative particle and a particle of inclusion. These uses differ in their syntactic flexibility and rigidity (restrictedness). Although more than one function can incorporate to express multiple senses, the salient point about the different functions of *maa* is that there is no semantic or syntactic ambiguity between its functions.

I. INTRODUCTION

The research on HA has been attracting several linguists over the last two decades. However, while some of the uses of *maa* have been abundantly investigated by some linguists including Sieny (1978), Feghali (1991), and Al Zahrani (2008, 2013, 2014a, 2014b), other uses, to the best of the author's knowledge, have gained little or even no attention at all. Therefore, the current paper aims at describing those other uses and functions of *maa*. The significance of this study lies in the fact that it enriches the research on HA by describing the different functions of the HA *maa* and, furthermore, fills in the gap of the literature by providing fertile linguistic grounds for future morphosyntactic and semantic investigations of each function of *maa*.

The present paper uses multifunctionality to refer

to the property of the HA particle *maa* to appear in different syntactic structures that result in different functions and different semantic interpretations. Following Lieber's (2015) division of the words into closed/functional and open/contentive classes, *maa* is a lexical functional morpheme whose different functions, as argued in sections II and III, are not instances of homonymy, but of multifunctionality.

Multifunctionality is a cross-linguistic phenomenon showing "the ability of one linguistic element, such as a word or a morpheme, to surface in various syntactic environments and adopt a different function in each of these environments" (Hachem 2015:1). To clarify, the different uses and senses of some English functional morphemes including *has*, *that*, *it*, and *there* exhibit multifunctionality, as shown in (1-3), adopted from Hachem (2015:49).

1. a. Marta **has** a car.
b. Marta **has** driven a car.
2. a. Marta drove **that** car.
b. I saw **that** Marta was driving.
3. a. I saw **it**.
b. **It** seems to be sunny outside.

The set of examples in (1a-b) presents the two different uses of *has* as a full verb (1a) and as an auxiliary (1b). Examples (2a-b) show the element that serving as a deictic/demonstrative element in (2a) and as a complementizer in (2b). The examples in (3) present more cases of multifunctionality where the subject pronoun *it* can serve as a subject pronoun (3a) or an expletive (3b). While the expletive pronoun is non referential, the subject pronoun is referential (Radford 2009:46). Evidence for this claim about the subject pronoun springs from Radford's (2009:46) claim that the English expletive pronouns such as *there* and *it* carry no intrinsic meaning but are syntactically required to satisfy the grammar of the language. For instance, in (3b) the finite verb seems requires the presence of the subject pronoun *it*. In this case, it is an expletive pronoun and not referential as it cannot be questioned by any appropriate interrogatives (Cf. *what does seem to be sunny outside? it!). Contrary, the subject pronoun can be questioned by the appropriate interrogative (Cf. what did I/you see? it). Note that there is no semantic ambiguity found in the different uses of any of the English elements above.

Moving from English to German and Dutch languages, other cases of multifunctionality are present. Hachem (2015:2) presents multiple uses of what she calls d-items and w-Items in German and Dutch. These items have multiple functions as: wh-words, pronouns, interrogative pronouns, demonstrative pronouns, exclamative markers and determiners. Some of these uses are shown in the set of examples in (4a-d), adopted from Hachem (2015:2-3).

4. a. **Was** *liegt da auf dem Boden?*
What lies there on the ground?
'What is lying on the ground over there?'
- b. *Ich habe was Interessantes gelesen.*
I have what interesting read
'I read something interesting.'

c. *Ich kaufe, was mir gefällt.*
I buy what me pleases
'I buy what I like.'

d. *Was ein sonniger Tag!*
what a sunny day
'What a sunny day!'

The German morpheme *was* may function as an interrogative pronoun (4a), an indefinite pronoun (4b), a relative pronoun in free relative clauses (4c), or as an exclamative marker (4d). Notice that the different functions of *was* are in complementary distribution, so there is no ambiguity between these functions as claimed by Hachem (2015).

Shifting to Arabic, the realization of multiple uses of a morpheme is also witnessed. For instance, the examples in (5a-c) present different functions of the Arabic morpheme *wa* as an oath particle (first instance in 5a), as a coordinator particle with an "additive function" (Ryding 2005:409) connecting items of a list, words or clauses (second and third instances in 5a), as an accompaniment particle (5b), and as a circumstantial particle (5c).

5. a. *wa-Allahi laqad ja:-a* *Mohammad-un*
CONJ-Allah ASP PF.come-3SG.M Mohammad-NOM
wa Ali-un wa Ahmad
CONJ Ali-NOM CONJ Ahmad
'I swear by Allah that Mohammad, Ali and Ahmad have already come.'

b. *sir-na: wa daw?-u al-qamar-i*
PF.walk-1PL CONJ light-NOM D-moon-GEN
'We walk with (the accompaniment of) the moonlight.'

c. *ja:-a wa huwa ya-dhak-u*
PF.come-3SG.M CONJ PRN-3SG.M.NOM IMPF.3SG.M-laugh-IND
'He came (in the state of/ while) laughing.'

Other Arabic multifunctional particles include the Classical Arabic (CA) *maa* that can function as a negative, interrogative, relative, nominalizing, durative, exclamatory, indefinite, conditional and redundant particle. The multiple uses and examples of the CA *maa* are found in the studies of Wehr and Cowan (1979) and Abboud and McCarus (1983). While this paper considers the different functions of the HA *maa*, it does not present its similarities and differences with the CA *maa* nor does it include the CA *maa* in the discussion as this will take us too far afield.

The most important points drawn from the set of examples presented in (1) to (5) are twofold. First, it shows the presence of the linguistic phenomenon of multifunctionality across some languages.

Second, it supports Hachem's (2015) claim that the different functions of a multifunctional morpheme are in complementary distribution. Put differently, one can argue that there is no ambiguity between the different functions of a multifunctional element in one syntactic structure. To make this more practical, one can notice that there is no ambiguity between the different functions of the morpheme *wa* in (5) above. That is, *wa* in (5b-c) cannot show the additive or the oath uses of *wa*. Also, it cannot be circumstantial or for accompaniment purposes in (5a). The syntactic environment where the morpheme *wa* occurs is what determines its appropriate interpretation. Likewise, the appropriate interpretations of the instances of the morphemes that (2a-b) and it (3a-b) are all governed by the syntactic distribution and environment of each particle. Ultimately, it is the structural environment that makes the multifunctional element function syntactically and semantically in a particular way. The remaining parts of the paper include Section II that discusses the approaches to multifunctionality; Section III and its subsequent sections (3.1 through 3.7) that form the main descriptive part of the paper exploring *maa* and its functions. Section IV argues that the different functions of *maa* propose a feature matrix containing its morphosyntactic features and their specifications, and Section V concludes the paper.

II. THEORETICAL BACKGROUND ON MULTIFUNCTIONALITY

There are two main approaches to multifunctionality in the literature. It can be studied from a lexicalist perspective or a generative perspective. This paper uses the latter perspective but it also shows why the lexicalist approach is not favoured.

The lexicalist approach, also known as lexicalist hypothesis and lexical hypothesis, is a traditional approach attributed to Chomsky (1970). It has a number of supporters and defenders (including Arnott 1970; Jackendoff 1972; Ackema and Neeleman 2004; Williams 2007; Newmeyer 2009; Müller and Wechsler 2014, to mention a few). It basically argues that "the system of grammar that assembles words is separate from the system of grammar that assembles phrases out of words" (Bruening 2018:1). This entails that there are two separate systems: the phrasal system and the word system. This division results in that "the phrasal

system has no access to subword units and, in addition, the output of the phrasal system never forms the input to the word system" (Bruening 2018:1).

With respect to multifunctionality, the lexicalist approach argues that the cases of multifunctionality of a morpheme are reflexives of homonymy (Hachem 2015:20-21). Given this argument, multifunctionality then covers all linguistic elements that have the same sounds but express different meanings. A typical example of this homonymous relation is the forms *bank* 'a financial institution' and *bank* 'the edge of a stream' (Kreidler 2014:52) where both share the same sounds (and spelling) but express different interpretations. However, this approach cannot be without problems. One of the problems that lexicalists face with homonymy is the fact that some forms have a wide range of meanings so that semanticists have to decide whether the meanings show cases of polysemy or homonymy (Kreidler 2014:52-53).

With this being said, multifunctionality is different from homonymy. The underlying point about homonymy is that the same forms that share the same sounds but express different meanings can occur in the same syntactic environment. One consequence of this is that lexical ambiguity arises between the two potential interpretations as shown in (6).

6. 'The bank you are looking for is there'.

In (6) the form *bank* could refer to 'the bank of the river' or 'the financial institution', so the semantic/lexical ambiguity is present with homonymous forms occurring in one syntactic structure. These semantic issues are absent in the linguistic phenomenon of multifunctionality (Hachem 2015:21). What matters in multifunctionality is the syntactic environment in which the functional elements occur, but never their content. Hachem argues that if we consider the multifunctional elements of one language as homonymous elements we will be inclined to conclude that the cross-linguistic phenomenon of multifunctionality shows coincidence by accidentally attributing different functions to a number of elements sharing the same sounds. In line with this argument, Wiltschko (2014:93) holds that when we see one form in different syntactic configurations with different

functions we should take for granted that it is the same element and that its different functions have been acquired by its presence in the respective syntactic structures. This view rejects the proposal that multifunctionality shows cases of homonymy. The advocates of this rejection are the majority of linguists (including Lieber 1988, 1992; Halle & Marantz 1993; Ken and Keyser 1993; Marantz 1997; Bruening 2014, 2018, to mention a few).

Supporters of multifunctionality as a syntactically driven linguistic phenomenon argue that the grammar of language does not require two separate systems, but only one. The requirement of one component system is against the two systems of the lexicalist approach, i.e., the phrasal system and the word system. Having only one system features simplicity because it is simpler for a model of grammar to have only one system than two; so this explains why Bruening (2018:1) claims that the lexicalist hypothesis of having two grammar components is “both wrong and superfluous”. Following this line of argument, the lexicalist approach to multifunctionality is not adopted in this paper.

From a generative perspective, multifunctionality has been treated, not as cases of homonymy, but as feature matrices of elements. Put differently, a multifunctional element has a feature matrix and the syntactic behaviour of the element is determined by its feature matrix that contains its morphosyntactic features and their specifications (Hachem 2015:26). Following Hachem (2015), the present paper argues in Section IV that the different functions of the HA *maa* form a feature matrix, which determines its appropriate syntactic behaviour and its appropriate semantic interpretation. The feature matrix discussion in section V shows an important finding in regard to the more flexible use of *maa*, which can be considered the main use of this HA morpheme.

The feature matrix hypothesis is supported by several linguist (including Chomsky 2001; Barbiers 2009; Barbiers, Koeneman, and Lekakou 2010; Barbiers 2013; Boef 2013, to mention a few). The following section lists the multiple uses of the HA *maa* and presents the studies that have investigated some of those uses.

III. MULTIFUNCTIONALITY OF *MAA*

The main argument of this paper is that the HA *maa* is characterized by having different functions and uses that deliver different senses and interpretations that can only be derived from the different syntactic environments that *maa* surfaces in. Apart from its use as negator, the paper glosses *maa* in all other uses as PRT: particle. The reason behind this gloss is that I follow Morris' (1969:90) definition of particles as a member of a class of forms that have no inflection. Thus, the HA *maa* is a particle that does not inflect for any of the grammatical categories of tense, aspect, person, number, or gender... etc. The eight multiple uses of the HA *maa* are the following.

- A negative particle
- An emphatic particle
- A relative pronoun
- An infinitival particle
- A conditional particle
- An interrogative particle
- An exclamative particle
- A particle of inclusion

The HA *maa* has been investigated as a negative particle as can be seen in the studies of some linguists (including Sieny 1978; Feghali 1991; Al Zahrani 2008, 2013, 2014a, 2014b; Eifan 2017; Al Zahrani and Alzahrani 2019). In its function as a negative particle, Al Zahrani (2008) has deeply investigated its morphological impact on its following clauses. Furthermore, Al Zahrani (2013) has explored how it interacts with modal particles. Also, in another study, he has shown its selectional properties when scoping over nominal clauses (Al Zahrani 2014a). In like fashion, Al Zahrani and Alzahrani (2019) have presented the behaviour of *maa* when scoping over verbal clauses. To the best of the author's knowledge, however, the other seven functions of the HA *maa* listed above, have not been investigated, explored or even presented in the literature as different functions of *maa*. Having been working on HA for around fifteen years, I have not come across any linguistic work that marks the HA *maa* as an emphatic, relative, infinitival, conditional, interrogative, exclamative or inclusive particle. Hence, this paper contributes to the existing HA literature by presenting these multiple uses, their examples, and their senses and interpretations along with some brief syntactic

overview of these uses. This should create a solid base for future research to thoroughly investigate the syntactic properties of each use, its placement in the hierarchy, and its interaction with other functional categories.

Apart from the negative *maa* that has been explored in the literature (see Section IV), the next subsequent sections explore the other seven functions of the HA *maa* and the different senses and interpretations derived from each use. The findings show that, unlike the negative function of *maa*, the other functions demonstrate highly restricted syntactic distribution. Thus, they differ from the negative *maa* whose literature, briefly summarized in Section IV, demonstrates that its occurrence as a negative element is more flexible and covers a wide range of different clausal structures when compared to the other seven functions of *maa*.

3.1 *Maa* functioning as an emphatic particle

Interestingly enough, the morpheme *maa* that can be used to negate a proposition in a clause, can also be used in a restricted clausal structure headed by an adverb of frequency to emphasise the proposition of the clause. Consider the examples in (7) and (8).

7. a. *maa a-ktub fi al-faisbok*
 NEG IMPF.1SG-write P D-facebook
 'I do not write on Facebook.'
- b. *na:deran maa a-ktub fi al-faisbok*
 rare PRT IMPF.1SG-write P D-facebook
 'It is rare that I write on Facebook.'
8. a. *maa a-shu:f-ak fi al-maktabah*
 NEG IMPF.1SG-see-2SG.M.ACC P D-library
 'I do not see you in the library.'
- b. *da:eman maa a-shu:f-ak fi al-maktabah*
 always PRT IMPF.1SG-see-2SG.M.ACC P D-library
 'It is always that I see you in the library.'

The examples in (7a) and (8a) present the negative *maa* negating the whole propositions. The absence of the negative *maa* in (7a) and (8a) makes the two clauses affirmative. Contrary, *maa* functions differently in examples (7b) and (8b) as it respectively emphasizes the propositions of 'rare writing on Facebook' and 'always seeing the addressee in the library'. Using Barbiers et al's (2010:7) expression of syntactic rigidity and flexibility, (7b) and (8b) show a rigid (inflexible) structure in which the presence of *maa* to interpret emphasis is highly restricted to its occurrence after an adverb of frequency. Changing its position and its syntactic environment yields other functions or ungrammatical clauses. Put differently, the

emphatic *maa* must always be headed by an adverb of frequency such as *da:eman* 'always', *ka:the:ran*, 'oftentimes/frequently' *gha:leban* 'often', and *na:deran* 'rarely'. Notice that the absence of the particle *maa* in the (b) examples makes the sentences lack emphasis though they should still express declarative affirmative clauses. This supports the claim above (Section III) that the syntactic environment that surrounds the functional element is what makes the element function in a particular way and interpreted appropriately. This claim can be further supported by the particle *maa* when functioning as a relative pronoun as in the next sub-heading.

3.2 *Maa* functioning as a relative pronoun

The particle *maa* can also function in a way similar to the HA definite relative pronoun *illi* 'that'. This function is rigidly restricted to suppletive clauses, prayers and wishes. Consider the examples in (9).

9. a. *Allah ya'ti:-k maa ti-tmanna*
 Allah IMPF.give-2SG.M PRT IMPF.2SG.M-hope
 'May Allah give you what you hope for!'
- b. *ya: rabb tihfaTH-ha min*
 O Lord IMPF.protect-3SG.F P
maa t-kha:f
 PRT IMPF.3SG.F-get.scared
 'O' Allah, protect her from what she is afraid of!'
- c. *ja:-k maa ti-tmanna*
 PF.come-2SG.M PRT IMPF.2SG.M-hope
 'You have got what you hope for.'

In (9a-b) the particle *maa* occurs in suppletive clauses where the speaker is invoking Allah for giving his addressee what the addressee is hoping for (9a) and protecting his addressee from what the addressee is afraid of (9b). Example (9c) shows the occurrence of *maa* for wishing purposes. Again, the restricted syntactic environment of the particle *maa* is what has resulted in this function of *maa* and achieved such interpretations. Unlike the use of the negative *maa* in (7a) and (8a) whose absence may change the meaning of the clauses to non-emphatic, the absence of *maa* in (9a-c) renders the clauses ungrammatical. Notice that in these examples the particle *maa* can be replaced by the HA relative pronoun *illi* 'that'. The difference being between *maa* in its relativizing function and *illi* is that *maa* can only be used to refer to inanimate objects whereas *illi* is a definite relative pronoun that can be used with both animate and inanimate objects. In addition, the use of the particle *maa* indicates more absolute senses, i.e., *maa* inclusively refers

to whatever the addressee may hope for (9a) and whatever she is afraid of (9b). The use of *illi*, being a definite relative pronoun, will refer to specific definite things that the addressees may hope for and be afraid of.

The absolute senses of *maa* show an important point that one can draw from these examples in (9b). Al Zahrani and Alzahrani (2019) argue that the HA negative *maa* indicates the absolute negation when occurring before perfective and imperfective forms. Also, the particle *maa* in Classical and Modern Standard varieties of Arabic indicates the absolute negation before the indicative mood, as argued by Rammuny (1978:253). Building on these arguments and on what one can observe from the examples in (9a-c), one must then be inclined to draw the generalization that *maa* can be characterized in some functions by the property of absoluteness. This sense of absoluteness can be further evidenced by the fact that *maa* may function as an indefinite relative pronoun indicating a range of senses when affixed to some other elements including *kullamaa* ‘every time, whenever’, *wagt maa* ‘the time at which’, *kul maa* ‘everything that, whatever’ *bainmaa* ‘while’ or ‘whereas’, *zai maa* and *mithlmaa* ‘however, as, like, similar to’. A number of these functions are exemplified in (10).

10. a. *kullamaa ga:bal-t-uh sharad*
whenever PF.meet-1SG-2SG.M PF.escape-3SG.M
‘Whenever I met him, he would run away.’
- b. *ishtar kul maa ti-h̄ta:j*
IM.buy.2SG every PRT IMPF.2SG.M-need
‘Buy whatever you need.’
- c. *ruh ishtar-ha bain-maa*
IM.go.2SG IM.buy.2SG-3SG.F between- PRT
a-kalim abu-k
IMPF.1SG.M-write father-2SG.M
‘Go and buy it while I call your father.’
- d. *hu: s:adiq bain-maa*
PRN. 3SG.M.NOM truthful between-PRT
int kadha:b
PRN. 2SG.M.NOM liar
‘He is truthful; whereas you are a liar.’
- e. *ilbas zai-maa tu-h̄ub*
IM.dress.2SG like-PRT IMPF.2SG.M-like
‘Dress however you like.’
- f. *b-t-udu:r hul-ha ila*
FUT-2SG.M.circle around-3SG.F.ACC P
maa laa niha:yah
PRT NEG end
‘You would be circling around it timelessly.’
[Lit: You would be circling around it to where no end.]

The examples in (10) present some of the different uses of *maa* when composed with other elements. All these uses indicate, more or less, the sense

of absoluteness. It is important to point out that the presence of *maa* with these elements in (10a-f) is obligatory as its absence renders the clauses ungrammatical. Here again, that the interpreted senses of *maa* are governed by its syntactic environment, i.e., in each case *maa* is governed by (and selected by) the immediate constituent preceding it. For instance, in *bain-maa* the particle *maa* is governed and selected by *bain* to convey the temporal meaning corresponding to ‘during the time that, while’ in (10c) and the contrastive meaning corresponding to ‘whereas’ in (10d). Other uses of *maa* show similar senses to the English wh-elements when suffixed to *ever* (10a,b,e & f). This suggests that the particle *maa* can occur in embedded clauses. It can also be suffixed to the preposition *bi-*, the verb *ta:la*, or precede the verb *da:m*. These two verb forms express senses related to continuity and remaining, and when *maa* is attached to them the derived forms can be interpreted as ‘as long as, because it continues/remains, because it is still the case that ...’ etc. Consider the examples in (11).

11. a. *bi-maa inn-ak musa:fir*
P-PRT C-2SG.M.ACC PART.travel.2SG.M
bukrah ijlis ma^c-na allailah
tomorrow IM.sit.2SG P-1PL.GEN tonight
‘Because you are travelling tomorrow, stay tonight with us.’
- b. *ta:la-maa inn-uh mawju:d*
PF.extend-PRT C-3SG.M.ACC PART.exist.3SG.M
la:zim yu-h̄THur al-dars
MOD IMPF.3SG.M-join D-lesson
‘As long as he is around, he should join the class.’
- c. *ta^a:l zu:ra-na maa-da:m*
IM.come.2SG IM.visit.2SG-1pl PRT-continue
inn-ak fi al-Taif
C-1SG.M.ACC P D-Taif
‘Come and visit us as long as you are still in Taif.’

One can notice that the examples in (11a-c) present the particle *maa* in subordination where the subordinative clause may precede (11a-b) or follow (11c) the main clause. The different interpretations of *maa* indicated by examples (11a-c) are syntactically restricted to the presence of *maa* before/after the elements combined with *maa*. Furthermore, the examples in (11) show that the particle *maa* should always be followed by a CP headed by the complementizer *inn*. Needless to say, the presence of *maa* is obligatory for the grammaticality of these clauses in (11). While these interpretations of *maa* show *maa* in a structure where it must be followed by the complementizer *inn*, *maa* can also function as a complementizer as shown in the next subheading.

3.3 *Maa* functioning as an infinitival particle

One of the functions of the HA *maa* is similar to the function of the CA and MSA complementizer *ʔn*, which corresponds to the English infinitival tense marker *to*. In such a case, the particle *maa* must restrictedly occur after a time conjunction element as shown in (12).

12. a. *sa:far* *gabl* *maa* *ra:salt-uh*
 PF.travel.1SG.M before PRT PF.correspond.1SG-3SG.M
 'He had travelled before I emailed him.'
- b. *sa:far* *baʿd* *maa* *ra:salt-uh*
 PF.travel.1SG.M after PRT PF.correspond.1SG-3SG.M
 'He travelled after I had emailed him.'
- c. *sa:far* *gabl/baʿd* *mura:salat-uh*
 PF.travel.1SG.M before/after PART.correspondence-3SG.M
 'He travelled before/after sending him the email.'

Examples (12a-b) show that the particle *maa* refers to either an action that is anterior or posterior to the action expressed by the higher matrix clause *sa:far* 'he travelled'. In (12a), the action of travelling is anterior to the action expressed after *maa* while it is posterior to the action after *maa* in (12b). These senses emerge due to the highly restricted environment of *maa* that shows an association between the adverbial time elements (time conjunctions) and the particle *maa*. Some linguists consider *maa* in this function gerundive (*masdariyh*) due to the fact that the verb following *maa* can be interpreted in its verbal noun form, i.e., *masdar*, after the deletion of *maa* as in (12c). Notice that the term *masdariyh* is derived from *masdar* which means 'source' where a verbal noun "names the action denoted by its corresponding verb" (Ryding 2005:75). Yet again, the examples in (12) indicate that the syntactic placement of *maa* and the structure around it with the selectional properties of the adverbial words makes *maa* function in this infinitival way. The next section shows that *maa* can be conditional.

3.4 *Maa* functioning as a conditional particle

For its conditional function, the particle *maa* requires the presence of exceptive particle *illa* 'except' as shown in (13).

13. a. *maa* *t-ru:h* *illa* *a-ru:h* *maʿ-ak*.
 NEG IMPF.2SG.M-go EXPTV IMPF.1SG-go P-2SG.M.GEN
 'You do not go unless I go with you.'
 [lit: you don't go except I go with you]
- b. *maa* *t-sawi* *shai* *taiyib*
 NEG IMPF.2SG.M-do thing good
illa *t-la:gi-h*
 EXPTV IMPF.2SG-find-3SG.M.GEN
 'If you do a good thing, you find it'
 [lit: you do not do a thing, good, except you find it]

In examples (13) one can notice that the conditional function is expressed via the cooperation between the functions of both the negative *maa* and the exceptive particle *illa*. Stated differently, the absence of either element derives ungrammatical clauses. Hence, this rigid structure of *maa+illa* is what makes *maa* function as a conditional element. This also supports the claim that there is no ambiguity between the different functions of *maa* discussed so far.

Example (13a) can be interpreted as 'if you go, I must go with you' where the necessity interpretation expressed by 'must' in this English translation is indicated by the combination of *maa+illa* (13). Notice that (13a) can also be interpreted as 'you cannot go without me going with you'. Hence, these interpretations indicate a strong necessity meaning and a strong prevention meaning; both of which are resulted from the combination of *maa* and the exceptive particle *illa* in the respective structures.

Similarly, example (13b) can be interpreted as 'you can never do any good things without finding them [=their good results later]'. These interpretations are not attained in normal conditional clauses using the default conditional particle *idha* 'if' as shown in (14).

14. a. *idha* *t-ru:h* *a-ru:h* *maʿ-ak*
 if IMPF.2SG.M-go IMPF.1SG-go P-2SG.M.GEN
 'If you go, I go with you.'
- b. *idha* *t-ru:h* *mumkin* *a-ru:h* *maʿak*
 if IMPF.2SG.M-go MOD IMPF.1SG-go P-2SG.M.GEN
 'If you go, I may go with you.'
- c. **idha* *t-ru:h* *illa* *a-ru:h* *maʿak*
 if IMPF.2SG.M-go EXPTV IMPF.1SG-go P-2SG.M.GEN
 'If you go, I go with you.'
- d. **maa* *t-ru:h* *illa* *mumkin*
 NEG IMPF.2SG.M-go EXPTV MOD
a-ru:h *maʿak*
 IMPF.1SG-go P-2SG.M.GEN

The interpretation of the conditional clause in (14a) is not as strong as its counterpart in (13a). Evidence for this claim emerges from (14b-d) where the possibility modal *mumkin* may head the lower TP [*aru:h maʿak*] if the matrix clause is headed by *idha* (14b), which, in turn, shows a possible proposition. In contrast, the presence of the exceptive particle, which emphasises the interpretation and makes it strong when accompanied with *maa*, cannot occur in a normal conditional clause headed by *idha* as shown by the ungrammaticality of (14c). Nor can the possibility modal *mumkin* occur with *illa* as shown by the ungrammaticality of (14d).

Hence, the strong conditional interpretation is derived through the combination of prevention and emphasis: prevention through *maa* and emphasis through *illa*. This syntactic combination gives the meaning that ‘your going is conditioned by my going with you; otherwise, you can’t go’. This, once more, shows another highly restricted and syntactically-inflexible environment, which backs up the above claim that the rigid syntactic structure of *maa* makes it behave in a particular way.

3.5 *Maa* functioning as an interrogative particle

The particle *maa* can also function interrogatively. In this function it expresses negation and interrogation in yes/no constructions as in (15).

15. a. *maa ga:bal-t-ak ams?*
 NEG PF.meet-1SG-2SG.M yesterday
 ‘Did I not meet you yesterday?’
- b. *maa a-ga:bil-ak kul ithnain?*
 NEG IMPF.1SG-meet-2SG.M every Monday
 ‘Do I not meet you every Monday?’
- c. **laa ga:bal-t-ak ams?*
 NEG PF.meet-1SG-2SG.M yesterday

In examples (15a-b), *maa* shows both negative and interrogative functions. This does not contradict the claim that there is no ambiguity between the different functions of a multifunctional element. Stated differently, one can tell that there are only two functions without any ambiguity with other functions. However, the two functions have been derived successively through different syntactic operations. To account for this, recall that a null CP, as is the case in (15a-b), is headed by a null complementizer carrying a declarative force feature (Radford 2009:99). Underlying, we assume that the negative function of *maa* in (15a-b) emerges through the presence of *maa* in its base-generation position (NegP) that dominates TP that is dominated by a null CP that assigns the declarative force before any overt movement of the negative *maa* has taken place (Al Zahrani 2014b; Al Zahrani and Alzahrani 2019). Then, the interrogative interpretation is resulted by some overt movement of the negative *maa* to CP. According to the Feature Checking in the Government and Binding theory, the negative *maa* first checks its negative feature where it is base-generated in NegP before moving higher to CP to check the interrogative feature that requires a morphological form that must merge with its interrogative feature. This type of overt movement that results in another function is not unusual. For

instance, all English modals must merge with both Tense and Modal functions before moving higher to the head of CP to interpret the interrogative function (Radford 2009). This analysis of English modals shows three functions: tense, modality and interrogation.

Expressing negative and interrogative functions is particular to the negative *maa*. Unlike the HA negative *maa*, the HA negative *laa* cannot express negative and interrogative functions as indicated by the ungrammaticality of (15c). This proposes that the primary function of *maa* in (15a-b) is negation while the interrogative function is derived through the overt syntactic movement to CP (more in Section IV). Hence, there is no ambiguity between the functions of *maa*. If *maa* stays *in situ* (NegP), it only shows a negative function; if it, however, moves to CP it absorbs another function due to the merge operation with the interrogative feature of CP. Now, the paper moves on to explore the exclamative function of *maa*.

3.6 *Maa* functioning as an exclamative particle

The use of the particle *maa* to express astonishment, surprise, or wonder is very common in HA. In this function, the exclamatory *maa* can occur with verbal and nominal clauses. In verbal clauses, *maa* is highly restricted to only select for one type of verbs conjugated on one particular templatic form, i.e., Trilateral Form IV aF^caL (see Chapter 3 in (Al Zahrani 2013) for HA, and (Hasan 2014) for Standard Arabic). Now, consider the examples in (16).

16. a. *maa ajmal al-wuru:d*
 PRT beautiful D-flowers
 ‘How beautiful the flowers are!’
- b. *maa aghba:-hum*
 PRT stupid-3PL
 ‘How stupid they are!’
- c. *maa ahabu-uh fi al-rasm*
 PRT love-3SG.M.ACC P D-drawing
 ‘He loves drawing!’
 [lit: what he-loves drawing]

In (16) the exclamatory *maa* is followed by the verbs *ajmal* and *aghba:*, which look like adjective forms in the English translation. Ryding (2005:519) calls such verb forms in CA and MSA ‘adjectival verbs’. Cowan (1958:102) calls them “verbs of surprise or admiration”. Cantarino (1974) considers them relative forms; he states that they are “relative in the accusative of exclamation” (Cantarino

1974:210). Notice that Cantarino uses the term accusative since CA verbal forms occurring with this type of *maa* exhibit the accusative case, which is morphologically null in almost all HA nominal forms. Cantarino uses the term elative, which corresponds to what Arab grammarians label as *'ism tafdi:l'*, i.e., noun of preference, to describe the superlative properties derived from this structure of *maa* and its following verbal forms.

This description of the examples in (16) shows that *maa* in its exclamatory function should only be followed by a particular form of verbs, which shows the restrictedness and rigidity of this syntactic behaviour.

3.7 *Maa* functioning as a particle of inclusion

The particle *maa* can also be used to indicate the inclusion of the whole time and space referred to in a proposition. In this function, *maa* can be interpreted as 'between that which spans...'. Consider the examples in (17).

17. a. *ni-tga:bal maa-bain al'asr wa almaghrib*
 IMPF.1PL-meet PRT-P Asr and Maghrib
 'We meet (at the entire time) between Asr and Maghrib prayers.'
- b. *khalli-na ni-hrwil 'la al-rasi:f*
 IM.1et.1PL IMPF.1PL-jog P D-sidewalk
maa-bain bait-na wa bait-kum
 PRT-P house-1PL and house-2PL
 'Let's jog on the sidewalk (spanning in the whole area) between our house and your house.'

Example (17a) occurs in a context where the speaker tells the addressee that they regularly meet and that their meeting spans almost from the Asr prayer to the Maghrib prayer: the prayers between the afternoon and sunset times. In like fashion, the speaker in (17b) invites the addressee to both jog on the whole sidewalk between their houses. The inclusiveness of the entire time and space referred to in the propositions in (17) is a special property of the particle *maa*. This is due to the fact that the element *maa-bain* is a composite of two morphemes: the particle *maa* (=inclusiveness) and the preposition *bain* 'between'. One can look at the resulting meaning of the combination of these two morphemes as 'the whole time/space spanning between X and Y'. The evidence for this claim is that the presence of the preposition *bain* without *maa* in (17) makes the interpretations lack the meaning of inclusiveness; however, the particle *maa* cannot exist in these structures in (17) without *bain*. Consider the examples in (18).

18. a. *ni-tga:bal bain al'asr wa almaghrib*
 IMPF.1PL-meet P Asr and Maghrib
 'We meet between Asr and Maghrib prayers.'
- b. *khalli-na ni-hrwil 'la al-rasi:f*
 IM.1et.1PL IMPF.1PL-jog P D-sidewalk
bain bait-na wa bait-kum
 P house-1PL and house-2PL
 'Let's jog on the sidewalk between our house and your house.'
- c. **ni-tga:bal maa al'asr wa almaghrib*
 IMPF.1PL-meet PRT Asr and Maghrib

Examples (18a-b) occur without the particle *maa* and indicate the interpretations 'we meet at some point of time between Asr and Maghrib prayers' and 'Let's jog on the sidewalk between our house and your house' respectively. Hence, the sense of inclusiveness is absent in (18a-b) due to the absence of *maa*. The ungrammaticality of (18c) is accounted for by the absence of the locative preposition *bain*. Put differently, the syntactic environment in (18c) is not suitable for the particle *maa* and none of its functions and interpretations is valid here. Therefore, *maa* does not suffice for the grammaticality of the structure in (18c).

Recall that the syntactic features and selectional properties play a crucial role in determining the appropriate interpretations of *maa*. We have noticed that the element *bain* may select for the particle *maa* to interpret the senses of 'while/whereas' (10c-d); but *bain* may be selected by *maa* to interpret the sense of inclusiveness (17). Hence, the syntactic position of *maa* before or after the preposition results in different interpretations.

It is striking that the sense of inclusiveness indicated by the particle *maa* is not unusual. This inclusiveness function of the particle *maa* in (17) invites us to recall the argument above made in examples (9a-c) where *maa* indicates a sense of absoluteness. The similarity between these two functions of *maa* is clear, i.e., in (13a-b) the sense of inclusiveness covers all the time duration (13a) and space (13b) spanning between the two prayers and the two houses; in (9a c) the sense of absoluteness includes all of what the addressee is hoping for (9a), afraid of (9b), and wants (9c).

Furthermore, the sense of inclusiveness can be accompanied with focus and emphasis interpretations when the particle *maa* is suffixed to the preposition *bi-* as shown in (19).

19. a. *gha:b* *kul al-tulla:b* *bi-maa*
 PF.be.absent.3SG.M all D-students P-PRT
fi:-hum al-shuṭa:r
 P-3PL-GEN D-hard.working
 ‘All the students are absent including
 the hard working ones’.
- b. *a-hzim* *kul al-musa:r^{ci}:n* *bi-maa*
 IMPF.1SG-beat all D-wrestlers P-PRT
fi:-hum int
 P-3PL-GEN PRN.2SG.M.NOM
 ‘I beat all the wrestlers including you.’

Example (19a) is uttered in a context where the speaker advises that all the students are absent and then he adds an emphasis on the absence of the hard working students by the use of the particle *maa* suffixed to the preposition *bi-* followed by the preposition *fi-* [*bi-maa fi:*]. Likewise, example (19b) shows that while the speaker arrogantly states that he is able to beat all the wrestlers, he highlights the inclusion of his addressee in the challenge by the structure of [*bi-maa fi:*]. The occurrence of the structure [*bi-maa fi:*] suggests that the hard working students are not like other students who normally miss classes (19a), and that the addressee in (19b) is not like some other wrestlers. The structures in (19b) show that the combination of [*bi-maa fi:*] interprets the sense of inclusiveness in restricted environments of *maa*. This sense of inclusiveness indicated by the structure of [*bi-maa fi:*] in (19) are similar to another Arabic style known as particularizing a member (or some members) for some focus out of the whole group after mentioning the whole group first. To clarify, the hard working students form a small group out of the bigger group of all students in the class (19a). Similarly, the addressee is supposedly a member of the whole group of wrestlers in (19b); for more on this style the reader is advised to see, for example, Ateeq (2009:191). What these senses of inclusiveness and focus suggest is that they re-emphasize the argument that the syntactic behaviour of *maa* derives its interpretation. This, in turn, poses the question of what determines a particular syntactic behaviour of *maa*.

To answer this question, recall that Section III and its subsequent sections have covered the different functions and uses of the particle *maa* along with a brief overview of some of the syntactic properties of the different uses. These different functions and uses propose different syntactic behaviours of *maa* that are derived according to its different

morphosyntactic features that form its feature matrix, as shown in the next section.

IV. THE FEATURE MATRIX OF *MAA*

From what the paper has described in Sections 3.1 through 3.7, and from the theoretical assumptions presented in Section II, one is inclined to conclude that the different functions of *maa* are unambiguously interpreted according to the different syntactic environments that *maa* surfaces in. That being so, the HA *maa* does not show instances of homonymy, but of multifunctionality. Being multifunctional, I argue that the different functions of *maa* form a feature matrix composed of its functions and their morphosyntactic features and specifications that determine its syntactic behaviour and its appropriate interpretation in a given context. When a feature is selected, it is specified for a particular use that conveys a particular interpretation. This, however, entails that all the other unselected features become underspecified in that particular use. Underspecification, for the purpose of this paper, is the linguistic phenomenon of omitting/deleting the form-features that are not compatible with a particular morphosyntactic environment of that form (for more on specification/underspecification, see Siddiqi 2009; Opitz, Regel, Müller, and Friederici, 2013). To apply this to the functions of *maa*, consider (7b) above repeated below as (20).

20. *na:deran maa a-ktub fi al-faisbok*
 rare PRT IMPF.1SG-write P D-facebook
 ‘It is rare that I write on Facebook.’

Recall that the description of the different functions of *maa* presented in sections 3.1 through 3.7 deduce that *maa* is specified for the following features.

[+negative], [+emphatic], [+relative pronoun],
 [+infinitival], [+conditional], [+interrogative],
 [+exclamative], [+inclusive]

Furthermore, the description provided so far has shown that each feature of *maa* can only be interpreted in a specific restricted syntactic environment. This being the case, (20) presents *maa* in a specific syntactic structure where it is preceded by the time adverbial element *na:deran* ‘rarely/rare’. Thus, it is specified for the [+emphatic] feature, and accordingly all the other features shall be underspecified in this context. In consequence, *maa* in (20) can only be interpreted as emphatic.

The question to be asked at this juncture is how we can account for the presence of two features of *maa* as is the case in (13a) and (15a) above, repeated below as (21a&b) respectively.

21. a. *maa t-ru:h illa*
 NEG IMPF.2SG.M-go EXPTV
a-ru:h ma^c-ak
 IMPF.1SG-go P-2SG.M.GEN
 ‘You do not go unless I go with you.’
 b. *maa ga:bal-t-ak ams?*
 NEG PF.meet-1SG-2SG.M yesterday
 ‘Did I not meet you yesterday?’

In (21a) *maa* is specified for both [+negative] and [+conditional] features. In (21b) *maa* is specified for both [+negative] and [+interrogative] features. In each case, all the other features of *maa* are underspecified due to their incompatibility with the respective syntactic environments. It should, however, be pointed out that *maa* in (21a) is primarily specified for the [+negative] feature; the additional feature of [+conditional] is derived from the presence of *maa* in conjunction with the exceptive particle *illa*. In similar fashion, the underlying structure of (21b) reveals that *maa* is mainly specified for the [+negative] feature before its overt movement to CP has taken place. Having moved to CP, the negative *maa* is then specified for the interrogative feature and should therefore jointly interpret the [+negative] and [+conditional] features.

This analysis, however, implies that the [+negative] feature is more salient and prominent than the other features. This implication can be further supported by what the literature on the HA negative *maa* has

shown about its freer syntactic distributions and its various selectional properties when compared to the syntactically restricted and inflexible distributions and selectional properties of the other functions of *maa*. That is, the studies on the HA negative *maa* (including Al Zahrani 2008, 2013, 2014a, 2014b, 2016, 2018; Al Zahrani and Alzahrani, 2019) conclude that the negative *maa* can freely scope over verbal and nonverbal clauses. Besides, it can either scope over modal particles or be in the scope of those modal particles. Furthermore, it is also worth noting that the negative *maa* has two other negative variants (*muu* and *mee*) that are specified for gender features and non verbal predicates. Apart from the negative *maa*, each of the other functions of *maa* represents more restricted and rigid syntactic distribution with only one single form: *maa*. Taking this all into account, the negative *maa* and its variants *muu* and *mee* exhibit more distributional flexibility and properties leading to more prominence. In light of this analysis, the feature matrix of the HA *maa* can be summarized Table 1.

The specifications column entails that if *maa* is specified for the feature(s) indicated between a set of square brackets, the other features turn out to be underspecified. The right-side column briefly outlines the morphosyntactic properties and the distribution of each function of *maa*. It is evident that, apart from the negative *maa*, all the other functions of *maa* are inflexible in their occurrence since they require rigid syntactic environments and show restricted selectional properties. The next

Table 1: Feature Matrix of *maa*

Specifications of <i>maa</i>	Morphosyntactic features & distribution (briefly)
[+negative]	<ul style="list-style-type: none"> • <i>maa</i> scoping over verbal, nonverbal & modalized clauses • modalized clauses scoping over <i>maa</i> (scope variation) • <i>muu/mee</i> scoping over nonverbal predicates, with gender variations
[+negative+conditional]	<ul style="list-style-type: none"> • <i>maa/muu/mee</i> + <i>illa</i> Note: Negative <i>maa</i> and its variants have the same morphosyntactic features and distribution shown in the upper cell.
[+negative+interrogative]	<ul style="list-style-type: none"> • <i>maa/muu/mee</i> + Move operation to CP Note: Negative <i>maa</i> and its variants have the same morphosyntactic features and distribution shown in the upper cell.
[+emphatic]	Adverb of Frequency + <i>maa</i>
[+relative pronoun]	<i>maa</i> in supplications, prayers and wishes
[+infinitival]	Time Conjunction + <i>maa</i>
[+exclamative]	<i>maa</i> + aF ^c aL
[+inclusive]	[<i>maa</i> + <i>bain</i>] OR [<i>bi+maa+fi</i> .]

section outlines the findings and conclusions of the paper and provides some recommendations for future work.

V. CONCLUSIONS

The paper has explored the multiple uses of the HA *maa*, its morphosyntactic features and their specifications. It has argued that those multiple uses of *maa* are reflexives of multifunctionality, not homonymy. Being a multifunctional element, its morphosyntactic features and their specifications form a feature matrix and determine its syntactic behaviour and its appropriate interpretation in a given context. That is, when a feature is selected, *maa* turns out to be specified for that feature in a particular use that conveys a particular interpretation. What follows from this specification is that all the other unselected features of *maa* become underspecified in that particular use. Nevertheless, there is no semantic or syntactic

ambiguity between these functions. Based on the above considerations, HA *maa* can function as a negative particle, an emphatic particle, a relative pronoun, an infinitival particle, a conditional particle, an interrogative particle, an exclamative particle or a particle of inclusion.

Given that *maa* can function differently and interpret different senses, these different functions and uses of *maa* suggest that *maa* cannot occupy the same position in the hierarchy (Cf. negative, affirmative, relative and exclamative functions). While it is beyond the scope of this paper to conduct a deep investigation of the syntactic placement and the hierarchical properties of each use of *maa*, it has provided a fertile ground for future research that may deeply investigate the structural properties of each function of *maa*, its placement and how *maa* in such a function interacts with other functional categories.

REFERENCES

- Abboud, P. F., and McCarus, E. N. (1983). *Elementary Modern Standard Arabic*. Cambridge: Cambridge University Press.
- Ackema, P., and Neeleman, A. (2004). *Beyond Morphology: Interface Conditions on Word Formation* (Vol. 6): Oxford University Press on Demand.
- Al Zahrani, M. (2008). Morphology of negation in Modern Standard Arabic and Spoken Hijazi Arabic. Unpublished MA Thesis, University of Queensland, Brisbane, Australia.
- Al Zahrani, M. (2013). Morphosyntactic and semantic properties of Hijazi Arabic modals. Unpublished PhD Thesis, University of Queensland, Brisbane, Australia.
- Al Zahrani, M. (2014a). 'Negation in non-verbal clauses: Modern Standard Arabic and Spoken Hijazi Arabic'. *Pakistan Journal of Languages and Translation Studies*, 2, 31- 49.
- Al Zahrani, M. (2014b). 'The syntactic properties of negatives'. *US-China Foreign Language*(1), 117.
- Al Zahrani, M. (2016). 'Aktionsarten projection and subcategorization'. *The International Journal of Arabic Linguistics (IJAL)*, 2(1), 46-69.
- Al Zahrani, M. (2018). 'Morphosyntactic and semantic properties of epistemic modals modifying verbal clauses. In P. G. Medina, R. T. Alonso & R. V. Escarza (eds.), *Verbs, Clauses and Constructions: Functional and Typological Approaches*, 149-166. Newcastle: United Kingdom: Cambridge Scholars Publishing.
- Al Zahrani, M. and Alzahrani, S. (2019). 'Negatives scoping over verbal clauses in some Arabic varieties'. *US-China Foreign Language*, 17(7), 332-344.
- Arnott, D. W. (1970). *The Nominal and Verbal System of Fula*. Oxford: Clarendon Press.
- Ateeq, A. (2009). *ilm alma'aani [Semantics]* (Vol. 1). Beirut: Dar Al-nahDah Al-Arabiyah.
- Barbiers, S. (2009). 'Locus and limits of syntactic microvariation'. *Lingua*, 119(11), 1607-1623.
- Barbiers, S. (2013). 'Where is syntactic variation'. *Language Variation-European Perspectives IV*, 14, 1-26.
- Barbiers, S., Koenenman, O., and Lekakou, M. (2010). 'Syntactic doubling and the structure of whchains'. *Journal of Linguistics*, 46(1), 1-46.
- Boef, E. (2013). *Doubling in relative clauses: Aspects of morphosyntactic microvariation in Dutch*. Netherlands: Netherlands Graduate School of Linguistics.
- Bruening, B. (2014). 'Word formation is syntactic: Adjectival passives in English'. *Natural Language & Linguistic Theory*, 32(2), 363-422.
- Bruening, B. (2018). 'The lexicalist hypothesis: Both wrong and superfluous'. *Language*, 94(1), 142.
- Cantarino, V. (1974). *Syntax of Modern Arabic Prose* (Vol. 1,2). Bloomington: Indiana University Press.

- Chomsky, N. (1970). 'Remarks on nominalization'. In Jacobs, RA and PS Rosenbaum (eds.), *Readings in English Transformational Grammar*, 184-221. Waltham: Ginn.
- Chomsky, N. (2001). 'Derivation by Phase'. In M. Kenstowicz (Ed.), *Ken Hale: A Life in Language*, 13-127. Cambridge, Massachusetts: M.I.T. Press.
- Cowan, D. (1958). *Modern Literary Arabic*. Cambridge: Cambridge University Press.
- Eifan, E. (2017). Grammaticalization in Urban Hijazi Arabic. Unpublished MA Thesis, Manchester.
- Feghali, H. (1991). *Arabic Hijazi Reader*. Wheaton: Dunwoody Press.
- Hachem, M. (2015). Multifunctionality: The internal and external syntax of D- and W-Items in German and Dutch. Unpublished PhD Thesis, Utrecht, The Netherlands.
- Halle, M. and Marantz, A. (1993). 'Distributed morphology and the pieces of inflection'. In K. H. a. S. J. Keyser (ed.), *The View from Building 20: Essays in honor of Sylvain Bromberger*, 111-176. Cambridge: MIT Press.
- Hasan, N. A. (2014). 'Exclamation in English and Arabic: A contrastive study'. *International journal of Science Commerce and Humanities*, 2(2), 174-198.
- Jackendoff, R. S. (1972). *Semantic Interpretation in Generative Grammar*. Cambridge, Mass.: MIT Press.
- Ken, H., and Keyser, S. J. (1993). 'On argument structure and the lexical expression of syntactic relations'. *Hale & Keyser (eds.)*, 53-109.
- Kreidler, C. W. (2014). *Introducing English Semantics*. London: Routledge.
- Lieber, R. (1988). 'Phrasal compounds in English and the morphology-syntax interface'. *CLs*, 24, 398-405.
- Lieber, R. (1992). *Deconstructing Morphology: Word Formation in Syntactic Theory*. University of Chicago Press.
- Lieber, R. (2015). *Introducing Morphology*. Cambridge University Press.
- Marantz, A. (1997). 'No escape from syntax: Don't try morphological analysis in the privacy of your own lexicon'. *University of Pennsylvania working papers in linguistics*, 4(2), 14.
- Morris, W. (1969). *The American Heritage dictionary of the English language*. New York: American Heritage Pub. Co.
- Müller, S., and Wechsler, S. (2014). 'Lexical approaches to argument structure'. *Theoretical Linguistics*, 40(1-2), 1-76.
- Newmeyer, F. (2009). 'Current challenges to the lexicalist hypothesis'. *Time and Again: Theoretical perspectives on formal linguistics*, 91-117.
- Opitz, A., Regel, S., Müller, G., and Friederici, A. D. (2013). 'Neurophysiological evidence for morphological underspecification in German strong adjective inflection'. *Language*, 89(2), 231-264.
- Radford, A. (2009). *An introduction to English sentence structure*. Cambridge, UK; New York: Cambridge University Press.
- Rammuny, R. M. (1978). 'Functional and semantic developments in negation as used in modern literary Arabic prose after World War I'. *Journal of Near Eastern Studies*, 37, 245-264.
- Ryding, K. C. (2005). *A Reference Grammar of Modern Standard Arabic*. Cambridge: Cambridge University Press.
- Siddiqi, D. (2009). *Syntax within the Word: Economy, Allomorphy, and Argument Selection in Distributed Morphology* (Vol. 138), John Benjamins Publishing Company.
- Sieny, M. (1978). *The Syntax of Urban Hijazi Arabic*. London: Longman.
- Wehr, H., and Cowan, J. M. (1979). *A Dictionary of Modern Written Arabic: Arab.-Engl.*, (4th ed.). Wiesbaden: Harrassowitz.
- Williams, E. (2007). 'Dumping lexicalism'. *The Oxford Handbook of Linguistic Interfaces*, 353-382.
- Wiltschko, M. (2014). *The Universal Structure of Categories: Towards a Formal Typology* (Vol. 142): Cambridge University Press.

Appendix : Abbreviations

1	First person	IND	Indicative mood
2	Second person	NEG	Negative
3	Third person	M	Masculine
ACC	Accusative case	MOD	Modal
C	Complementizer	NOM	Nominative case
CP	Complementizer Phrase	P	Preposition
CA	Classical Arabic	PART	Participial form
D	Determinative	PF	Perfective verb form
EXPTV	Exceptive particle	PL	Plural
F	Feminine	PRT	Particle
GEN	Genitive case	SG	Singular
HA	Hijazi Arabic	TP	Tense Phrase (Projection)
IM	Imperative mood	VP	Verb Phrase (Projection)
IMPF	Imperfective verb form	SA	Standard Arabic