Multiple Functions of the Nunations in Arabic Syntax: A Minimalist Perspective

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ABSTRACT

The objective of this work is to investigate the phonological features of nunation appear at the end of an NP in Modern Standard Arabic and relate them to syntax and semantics in the light of Chomsky’s (1995) views of Minimalist Program. Al-Jahaawi (1982, p. 10-11) has argued that the Arab phoneticians defined nunation as “a short vowel plus the nasal consonant n. The vowel is determined either by (i) its nature or (ii) its relation with other segments in articulation”. The researcher agrees with this definition but added that there are other forms having the structure [v + n + v] in addition to [v + n]. Due to the multiple forms projected, he posits phonological rules to govern their phonemic occurrences. He, further, has argued that each form carries intrinsic as well as optional features in syntax and they are posited at spell-out but survived up to the logical form as per X-bar-theory. In it, the NP with nunation is less in rank than the NP with the definite article al ‘the’ in the syntactic hierarchy as per the Extended Projection Principle. As far as the semantic features of nunation forms are concerned, a hypothesis is posited to account for the values of indefiniteness and non specificity in syntax and represent them concretely under [- Def. P].

Keywords: Nunation, Vowel, Consonant, Extended Projection Principle, Spell-Out, Logical Form, X-Bar Syntax and Features.

1. INTRODUCTION

It is evident that if an NP is declinable and marked with the definite article al ‘the’, it has to carry a particular case marker, namely: (i) u for the nominative as in [jaa?u al-waladu ‘the boy came’], a for the accusative as in [ra?itu al-walada ‘I saw the boy’] and i für the oblique cases as in [mashaitu ma? al-waladi ‘I walked with the boy’]. However, if an NP is indefinite, it has to carry other markers, namely, the nunations (i) un, (ii) an, and (iii) in for the same cases respectively. Suppose an NP is non-declinable, it has a zero case marker for all the above mentioned cases. The nunation is a unique phenomenon in Arabic syntax as it creates confusion once it appears at the end of an NP due to the multiple functions it performs in syntax. For instance, it has been defined by Ya’qub (1988, p. 275) and Al-?ansaaari (1990, p. 547) as “the attachment of the nasal consonant n as an additional stagnated suffix at the end of an NP to indicate indefiniteness”. Baiti (1992, p. 377) and Al-ghlayni (1973, p. 7) defined it as “the addition of the nasal consonant n at the end of a noun phonetically but not orthographically”. However, Wright (1984, p. 12) defined it as “the marks of the short vowels when doubled are pronounced with the addition of the sound n, an, in or in and takes place only at the end of a word”. However, Al-Jahaawi (1982, p. 10-11) has argued that the Arab phoneticians defined nunation as “a short vowel plus the nasal consonant n. The vowel is determined either by (i) its nature or (ii) its relation with other segments in articulation”. In short, there is no specific definition for nunation in Arabic syntax.

This work tries to give the final version of nunation and posits phonological rules to govern its distribution in a structure; it will be studied in syntax from a different perspective in light of Minimalist Program of Chomsky (1995). The researcher deals merely with the types that appear at the end of an NP in relation to a verb in a structure.

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2. The Overt Occurrence of the Nunation Marker in Arabic Syntax.  

Hasan (1975, p. 33-45, 137-147), Baiti (1992, p. 377-383) and Al-jihaawi (13-27) listed a few usages for the nunation marker and each marker has distinct form and function. They are listed as follows:

1. Tanwiin al- 'amkaniyeh , al – tamkiin or al – şarf ‘The nunation which shows that a noun is fully declinable’. A noun phrase that can be overtly case marked is traditionally known as tanwiin al- tamkiin. It is added to the following common NPs: (i) the singular [rajulun ‘a man’], (ii) the plural [rijaalun ‘men’, (iii) the singular proper name [zaidun ‘Zaid’], and (iv) the plural proper name ziyuudun ‘men and each one is named Zaid’. This kind of nunation is attached to the following categories of nouns.

(i). Al – mu crab al- munarif ' A noun declined with nunation ’: The nunation is adhered to the noun whose final morphological inflection is changed as per the grammatical function it occupies in the structure as is the case in the sentences (1):

1a. jaa?a  cалиiu- n  
came  Ali  nom  
‘Ali came’

1b. *ja?a  cалиiu- 0  
came  Ali  nom  ‘Ali came’

2a. ra?i- tu rajula- n.  
saw  i  man  acc  ‘I saw a man’

2b. *ra?i- tu rajula- 0  
saw  i  man  acc  ‘I saw a man.’

3a. mashai - tu ma’ ziyuudi -n  
walk  i  with  men and each one is named Zaid gen  ‘I walked with men and each one is named Zaid’.

3b. *mashai - tu ma’ ziyuudi -0  
walk  i  with  men and each one is named Zaid gen  ‘I walked with men and each one is named Zaid’.

The NPs ‘алиyu-n ‘Ali’ in (1a), rajula-n ‘a man’ in (2a) and ziyuudi-n ‘men and each one is named Zaid in (3a) are marked by the nasal n for the nominative, the accusative and the genitive cases respectively. (1b, 2b and 3b) are ungrammatical as the vowels u, a and i cannot render the sentences grammatical. The NPs ‘алиyu ‘Ali’ in (1a) and ziyuudun ‘men and each one is named Zaid ’ in (3a) are lexically proper names and semantically are definite by uniqueness but they are non-specific in these structures due to the overt occurrence of the nunation. However, the speakers and the hearers do not refer to particular persons known by their designations. (1a and 3a) are similar to the English sentence (4a) insofar semantic connotations are concerned. For instance, the NP ‘John’ is a proper name which is definite by uniqueness but non-specific as it isn’t post- modified by designation as in the specimen.

4a. John came home late night yesterday.

However, the NP ‘John’, in (4b), with the appositive expression, is definite and specific in the context as the speaker refers to one and only one person whose name is ‘John’ and whose designation is the prime minister.

4b. John, the prime minister, came home late night yesterday.

(ii). Al-mabni ‘indeclinable’: A foreign noun whose final combination is waih accepts either the zero or the nasal n in all grammatical function as in (5-7):

5a. jaa?a  siibawaihi-  
"- 688 -"
The NP siibawaihi-n and siibawaih ‘Sebawaih’ in (5a and 5b), ‘amruwaihi-n’ and ‘amruwaih ‘Amr’ in (6a and 6b) and siibawaihi-n and siibawaih ‘Sebawaih’ in (7a and 7b) are marked either by n or by zero for the nominative, accusative and genitive cases respectively.

2. Tanwiin Al- Tankiir ‘The nunation of non-specificeness and indefiniteness’

This kind of nunation is added to singular/plural proper names masculine and feminine as in (9-11) to indicate non-specific kind of reference and to common nouns singular or plural to indicate indefiniteness as in the specimens (9 and 10):

9a. shaahad tu nifţawih- 0 wa nifţawaihi- n.
   saw I Nifţawih acc and Nifţawaih acc
   ‘I saw Niftawaih and Niftawaih’.
9b. *shaahad tu nifţawih- 0 wa nifţawaihi- o
   saw I Nifţawih acc and Nifţawaih acc
   ‘I saw Niftawaihi and Niftawaihi’.
10a. ziyuudu- n qaadimuun.
    men and each one is named Zaid nom coming are
    ‘Men whose each name is Zaid are coming’.
10b. *ziyuudu- 0 qaadimuun.
    men and each one is named Zaid nom coming are
    ‘Men whose each name is Zaid are coming’.
11a. mashai tu ma快手 faatim a ati n.
    walked I with Fatima pl fem accom
    ‘I walked with women and each one is named Fatima’
11b. *mashai tu ma快手 faatim a ati 0
    walked I with Fatima pl fem comm
    ‘I walked with women and each one is named Fatima’
12a. jaa?a rajulu-
    came man nom
    ‘A man came’.
12b. *jaa?a rajulu-
    came ma nom

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A man came.

13a. ?aqbala zaidu n ?asadan
     came Zaid nom a lion
     ‘Zaid came as a lion’

13b. *?aqbala zaidu 0 ?asadan
     came Zaid nom a lion
     ‘Zaid came as a lion’.

In (9a), the NP niftawaihin ‘Niftawaih’ is overtly marked with the nunation marker n to confirm the non-specific meaning of the entity. However, the NP niftawih ‘Niftawih’ is marked with the accusative zero markers as the entity is indeclinable as per the Arabic system of nominal declension. The semantic difference between the two NPs in (9a) is that the zero marker in niftawaihin-0 is an indication of definiteness as well as specificity whereas n in niftawaihin is an indication of vague and non-specific sort of referent. (9b) is wrong as the nasal n cannot neither assign a case nor show indefiniteness in this context. The NPs ziyudu-n ‘men and each one is named Zaid’ in (10a) and faa’imaati-n ‘women and each one is named Fatima’ in (11a) are irregular plural masculine and feminine proper; they are marked by n as the nominative case marker and the accompaniment respectively. They are definite by being unique names but non-specific in reference. (10b and 11b) are wrong as the NPs cannot stand without n or with the alternate. In (12a), the NP rajulu-n ‘a man’ is indefinite because there is no specific reference of a particular person to come. Likewise, the NP zaidun ‘Zaid’ in (13a) is a proper name but non-specific in reference. (12b and 13b) are wrong as the marker n is omitted.

3. Tanwiin Al- ciwád ‘the nunation of substitute / compensation’

The nunation n is attached to: (i) a specifier to substitute an NP, (ii) to an adverb to substitute a finite clause and (iii) to an adjective to substitute the phonological cluster yu as in (14-16) respectively.

14a. hadarat al- duyuf- u fašaafaš tu kulla n
     attended det guests nom shock hand I each one acc
     min hum.
     of them
     ‘The guests attended and I shock hand with each one of them’.

14b. *hadarat al- duyuf- u fašaafaš tu kulla 0
     attended det guests nom shock hand I each one acc
     min hum.
     of them
     ‘The guests attended and I shock hand with each one of them’.

In (14a), the NP daif ‘a guest / one’ is deleted after the quantifier kull ‘each one’ but recovered from the overt occurrence of the nunation n at its end. This marker indicates the non specific kind of entity. (14b) is wrong because n is covert.

15a. jaa?a al- šadiiq- u wa kunn tu hiina?idi n
     came det friend nom and was I then loc
     ( jaa?a al- šadiiq- u) ghaa?iban.
     (came det friend nom absent
     ‘The friend came, I was absent then’.

15b. *jaa?a al- šadiiq- u, wa kunn tu hiina?idi 0
     came det friend nom and was I then loc
     (jaa?a al- šadiiqu) ghaa?iban.
     (came det friend absent
     ‘The friend came, I was absent then’.
In (15a), the clause jaa?a al-şadiigu ‘the friend came’, in parentheses, can be deleted and is recovered by the nunation of locative n. This fact, however, is due to the presence of the adverbial of time hiina?id ‘then / at the moment of’. (15b) is incorrect as the marker n cannot do the same function.

16a. al- nuquud- u bawaaqi-_ n³ det money nom remnant are loc ‘The money is remnant’.
16b. *al- nuquud- u bawaaqi- o. det money nom remnant are loc ‘The money is remnant’.

In (16a), the deleted entity is the semi vowel ya in the adjective baagiya ‘remnant sg, fem’. It is evident that the adjective bawaaqin ‘are remnant’ is the irregular plural form of baagiya. As the locative marker n is overt, it is made irregular and ya is recovered through it. (16b) is wrong because the marker 0 cannot recover the deleted ya.

4. Tanwiin al muqaabalah ‘The nunation of parallel / correspondence’.

The nunation is added to the regular plural feminine to correspond to the regular masculine as in (17) and (18) respectively:

17a. mu‘allim a- atu n qaadimaatun teacher pl fem nom is coming ‘Women teachers are coming.’
17b. *mu‘allim a atu 0 qaadimaatun. teacher pl fem nom are coming ‘Women teachers are coming.’
18a. mu‘allim- u una qaadimuuna. teacher pl.masc. nom are coming ‘Men teachers are coming’
18b. *mu‘allim- u 0 qaadimuuna. teacher pl.masc. nom are coming ‘Men teachers are coming’

The nunation marker n is added to the regular plural mu‘allimaatu-n ‘women teachers’ in (17a); but una is added to the regular plural mu‘allimu-una ‘men teachers’ in (18a) as a kind of parallelism. It is evident that the deletion of n in mu‘allimaatu ‘women teachers’ in (17b) and una in mu‘allimu (18b) make the sentences ungrammatical in Arabic syntax.

To sum up: A look at the above analysis indicates that n is a stagnated suffix optionally added at the end of an NP to indicate its nominal declensions as in (1-3), indefiniteness as in (9-13), substitution as in (14-16) and parallelism as in (17-18). The analysis shows that the Arab grammarians talked about various phonological, syntactic and semantic functions in one structure simultaneously. They regard n as the last resort to solve their problems.

3. The Problems

The above analysis suffers a number of shortcomings that can be divided into; (i) phonological / phonetic, (ii) syntactic and (iii) semantic. They are illustrated in order as follows:

The Arab grammarians, namely, Ya‘quub(1988, p. 275), Al- ‘ansaari (1990, p. 547), Baiti (1992, p. 377) and Alghlaini (1973, p. 7) and Hasan (1975, p.137-147 and 162-173) have argued that phonologically the nunation is basically the addition of only the nasal consonant n to an NP at PF as in ‘aliiu-n (sg) ‘Ali’ in (1a), mu‘allimaatu-n ‘women teachers’ in (17b) and mu‘allimu-na ‘men teachers’ in (18b). The deficiency is visible as they were unable to decide what exactly the structure of nunation in Arabic is. If they were correct how will the researcher differentiate between the nunation added to
the NP *rajulun* from *rajulan* and *rajulin* ‘a man’ in the same structure? As per their analysis, it is the same. This is due to the fact that the vowel does not constitute a part of the structure of nunation. From another perspective, Al-Jahaawi (1982, p. 10-11) has argued that the Arabic phoneticians defined it as a short vowel plus the nasal consonant *n*. For him, the nunation is merely a vowel and *n*; whereas, the researcher finds cases where there is another vowel after *n* as in *mu'allimuna* ‘men teachers’ in (18a).

In short, the researcher argues that its distribution in Arabic syntax is not random and there are phonological rules that govern it. The proposed rules in the next section will revise the whole structure of nunation with the help of generative phonology perspectives of Chomsky and Halle (1968) then propagated by Schane (1973, p. 49-73).

As far as syntax is concerned, the problem is visible when the Arab grammarians were unable to differentiate between the NP with nunation from that without it insofar the syntactic hierarchy is concerned. Fasi Fehri (1987, p. 25-29) has argued that the marker *n* functions as an indefinite article in Arabic syntax as in (19).

4.1. Assimilation and Nasalization in Various Languages as Per Generative Phonology

A look at the descriptive analysis makes the researcher thinks of a new explanation to the concept of nunation in Arabic syntax from a different phonological perspective. The researcher refers to Chomsky and Halle’s generative
phonology (1968) then propagated by Schane (1973, p. 49-73) to explicate the phenomenon of nasalisation in French and English and then compare it to Arabic. The researcher aims to check how the phonological mechanism of assimilation explains the relation between vowels and nasal consonants. And check the results whether phonemic or allophonic. The researcher tries to relate such results to syntax at spell out the level at which the lexical representations are posited in the structure. Then, the researcher provides phonological justifications to the rule of nunation in Arabic and decides whether it is phonemic or not. Assimilation is involved in this place because there is a natural explanation in the co-articulation of the nasal sounds and vowels in languages. From the articulatory perspective, the articulatory organs may be anticipating the articulation for another sound, and consequently the first sound will be modified in the direction of the second, or the articulation of the first may be carried over into that of the second, (Schane: 1973, p. 61). He has argued that the phenomenon of nasalization happens to any vowel if the neighboring sound is nasal (p. 21). For instance; in Standard French, the nasalized vowel are all low: un bon vin blanc [œ bɔ̃ vɛ̃ blã] ‘a good white wine’. Thus, a vowel plus nasal consonant is replaced by a nasalized vowel and has to carry the sign above the vowel. This process occurs in the same language whenever the nasal consonant is followed by a consonant or a pause as in (20):

20. bcnœ̃er happiness bɔtεe goodness
tcnlite tenality tə tone
romanistɔ Romanist’ rcmã Romance’ (masculine)
plnə full (feminine) plē full (masculine)
finɔ fine (feminine) fẽ fine (masculine)

(See Schane 1973, p. 56)

It is evident that the examples in (20) are explained in terms of coalescence in which assimilation and reduction are involved. The vowel becomes nasalized before the nasal consonant and the latter is deleted in the masculine form. In short, assimilation in French is phonemic and deep rooted in the lexicon; it is captured by the rule (21):


In other words, the researcher argues that in French a vowel is nasalized if it is followed by a nasal consonant and either a consonant or a word boundary.

Jones (1972, p. 212-213) has argued that the best example of nasalized sounds are the French vowels ê, ā, œ, o and œ as in [ vin vễ, sans sã, bon bỗ and un œ]. In Portuguese the regular pronunciation of the English word tense (which should be tens) as tõn or even tês. The Dutch and many South German have tendency of allophonic nasalization especially noticeable in the diphthongs vãĩ̋n or sãĩ̋n instead of vain ‘wine’.

Ladefoged (1993, p. 228) has argued that vowels in English may be nasalized if the soft palate is lowered to allow part of the air stream to escape through the nose as in [ man ‘mân’]. He also argued that there is a phonemic contrast between nasal and oral vowels; for instance, in French contrast main [mẽ̃] (hand) with mets [mɛ̃] (dish), and ment [mã̃] (lies (verb) with mâť [ma] (mast).

It is evident that in French the nasalized vowels constitute phonemic contrast at the phonological as well as the lexical level; however, in Portuguese, Dutch, South German and English, the nasalized vowels are allophonic and are visible at the phonetic level only.

4.2. Assimilation and Nasalization of the Nunation Markers at the End of NPs in Arabic Phonology

The nunation is, in fact, neither the result of a vowel lengthening process at the end of a noun phrase as assumed by Wright (1984, p. 12), nor is an additional stagnated marker added at phonetic form to indicate indefiniteness as the traditional Arab grammarians have already claimed. In stead, the researcher agrees with Al-Jahaawi (1982, p. 10-11) in the sense that nunation is composed of a short vowel plus the nasal consonant n but with modifications; for instance, the phonological structure for the nunation in Arabic syntax is [v + n] for (i) the singular as in [walad-un/an/in ‘a boy’], (ii) the regular plural feminine [banaat-un/an/in ‘girls’] and (iii) plural proper as in ziyyaad-un/an/in ‘men and each one is named Zaid’; however, the structure [v + n + a] is visible for the regular plural masculine as in [mu’allimu-una/ mu’allimi-
ina ‘men teachers’]. Hence, they are basically categorized into two basic types. The former is phonemically composed of the vowels u, a and i plus the nasal consonant n and the latter is composed of the vowel u or i plus the nasal n plus the vowel a. The occurrence of each vowel depends on the syntactic position in which the NP occurs. They are obligatorily added at spell-out as phono-syntactic units to perform specific functions at all syntactic levels. If any unit of the two components is omitted, the NP in use cannot occupy either a grammatical function at spellout nor can be articulated at PF. The researcher also argues that these markers have features and such features are drawn from the lexicon and borne to interface as well as LF and PF by certain mechanism for various functions. Thus, una and un belong to two different categories though they share the first two phonemes.

Chomsky (1995, p. 379-386) has argued that interpretability at LF is determined by bare output conditions and is clearly an important property of features. A checked feature is either accessible to the computational system and is visible at LF as is the situation of person feature of DP or it is inaccessible to the computational channel and is invisible at LF once checked. The former is [+ interpretable] and the latter are [- interpretable], and they are frozen in place when they are checked. They involve Case, affixal features and Ø – features of V and T. Thus, the phonological features of the suffixes una/ ina, un, an and in are checked at spell-out and survive to PF as they are phonetically strong; but they are inaccessible to CHL as they are not interpretable. To account for the overt phonemic features at PF, the researcher posits the phonological rule (22a) that captures the environments in which the vowels are nasalized and (22b) in which case the vowels are not nasalized in Arabic.

22a. V [+ nasal] / [     +nasal   ] # / { y, w, m, n or v}#

22b. V[-nasal] / [     +nasal   ] # / [ C ]#

A vowel is nasalized in (22a) if the nasal consonants n and m end the NP and the neighboring word is initiated by the semi vowels w, y or the nasal consonants n, m, or a vowel. However, if the same nasal consonants are followed by a voiced or voiceless consonant, the vowel cannot be nasalized in (22b). Assimilation; however, in Arabic, is different in certain respects from other languages. There are two types of assimilation for nunation: (i) assimilation with nasalization as in (22a) and (ii) assimilation without nasalization as in (22b).

4.2.1 Assimilation with Nasalization

The suffixes un /una, an / ina and i / ina are decided each to be one single phonological unit. Each one of them is influenced by the grammatical function it occupies in the structure. The vowels are nasalized if n is followed by the semi vowels w, y or the nasal consonants n and m as initial boundaries in the neighboring. The researcher may look at the specimens (23-25):

23. shai? - ũn waqaal at something -gen she said fem ‘Something she said’ (Al- Baqara(t), verse, p. 113)

ever to line straight "Say: to Allah belong both east and west: He guideth whom He will to a way that is straight"

(Al- baqara(t), verse, p.142)

In (23), the vowel i in the genitive marker ũn is nasalized as it is followed by the semi vowel w in the initial position of the neighboring word waqaat ‘she said’. Likewise, the vowel a in mân ‘who’ in (24) is also nasalized as it is followed by the semi vowel y that initiates the adverb yshaâ? ‘ever’. In a similar phenomenon, the nasalization process takes place because the nasal n in khairin ‘good’ is followed by m in muhdaran ‘at present’ in (25).

25. yawma tajidu kullu nafsin ma ‘amilat min khair -în muhdaran
day you find each self what did from good gen at present
"On the day when every soul will be confronted with all the good it has done"
(aali 'imraan verse, p. 30)

In short, un, an and in are separate phono-syntactic suffixes posited at spell-out and retained up to PF. At the latter level, the vowels are nazalized due to the influence of neighboring environment that follows the nasal consonant as in (22a). It is evident that the phenomenon of nasalization is allophonic because the nasal asterisk above the vowel does not change the meaning of the word as that of English [mân] ‘man’.

In phonemic structure but not phonetic articulation, the nunations un is similar to the Hindi ergative case marker ne in (26).

26. ram un kursii khariidii
   Ram    erg chair  buy, past
   ‘Ram bought the chair.’

The NP ram ‘Ram’ in (26) is in the ergative case because of the case marker ne. If the vowel e or n is omitted, the sentence is wrong as the marker is defected. It is obvious that ne marks the NP as the verb khariidii ‘bought’ is in the perfective form and transitive. The overt occurrence of ne is restricted by a few syntactic factors as compared to un. For instance, if the verb is in the imperfective, ne cannot be overt as in (27) but un does not have such restriction in (28). Ne can be pronounced after a pronoun and maĩ ‘he’ is the specimen in (29) but un cannot as with the specimen huwa ‘he’ in (30):

*27. maĩ ne darwaazaa khol dyaa
   he erg door    open
   ‘I open the door’

28. zaid un yal cabu
    Zaid    nom plays
    ‘Zaid plays’

29. maĩ ne darwaazaa khol tii hû
    he erg door open fem imper.
    ‘I open the door’

   *30. huw un dhaahibu
    he nom going
    ‘He is going’

In short, ne is one phonological as well as syntactic unit as un. Phonetically it has the structure of the nasal consonant n and the oral vowel e. However, syntactically it marks referent expressions and pronouns as an ergative case marker if the verb in Hindi is in the perfective. Un , on the contrary, marks only referent expressions as the nominative case marker without being conditioned by the form of the verb in the structure.

4.2.2. Assimilation without Nasalization

Another sort of assimilation is found in Arabic but not in English is that if the vowel in the nunational structure is followed by any phonetic feature other than those mentioned in (22a) the vowel remains oral as in the specimens (31-35):

31. fa- man / *ân khaafa min muuʃîn janfîn ʔaw ithman
    But if anyone got scared from testator unjust or guilt
    fa- ?aʃala baina hum fala ithma ʔalai hi.
    has to reconcile among them no guilt upon him

   "But if anyone fears partiality or wrong-doing on the part of the testator. And brings about a settlement among the parties concerned, there is no wrong in him"  
   (Al-Baqra(t), verse, p.182)
32. hunna libaasun lakum wa- ?antum libaasun/* ūn lahunna
  
  "They are your garments and you are their garments"  
  (Al-Baqra(t), verse, p. 187)

33. fa nqalabu bi-ni’matin min allah wa- fa’dlin/* ūn lam
  and turn over they with grace from God and grace not
  yamsas hum suu
  be them evil

  "And they returned with grace and bounty from Allah and no harm ever touched them"  
  (aali ’imraan verse, p. 174)

34. qul ?aiyyu shai?in/* ūn ?akbaru shahadaatan
  say which thing greater than affidavit

  "Say: what thing is most weighty in evidence"?  
  (Al-?an caam, verse, p. 19)

35. daalika bi?anna allaha lam yaku mughairan ni?matan
  Because that God will never be change grace
  ?an’ama ha ‘ala qawmin/* ūn hatta yughairu pro ma bi
  Bestowed he on people until change they what in
  ?anfusahu hum Wa ?inna allaha sami’un ‘aliim
  own souls their and verily God hearth knowth

  "Because Allah will never change the grace which he has bestowed on a people until they change what is in their own souls: And verily Allah is the one who hears and knows all things"  
  (Al-?anfaal, verse, p. 53)

The environments in the instances (31-35) indicate that if the nunation markers are followed by the fricative [kh] as in (31), the lateral [l] as in (32 and 33), the glottal stop[?] as in (34) and the pharyngeal [h] as in (35), the nunation vibrations cannot occur. This environment is different from that of English because the initial boundary in the latter has no influence on the vowel articulation in the latter; however, both languages belong to nominative / accusative type and thus whether the vowel is nasalised or not, the environment is allophonic.

To sum up: the structure of the nunation is decided to be [v + n] for (sg, pl fem, pl proper, irregular pl) and [v + n + v] for regular plural and not merely n. The vowel is assimilated if the environment in the neighboring word starts with [n, m, y and v].

5. Nunational Markers and Checking Theory: A Minimalist Perspective

5.1. The Syntactic Analysis

The nunational markers un (nom), (sg, pl fem, pl prop ) and una (nom) (pl reg), an (acc), (sg, pl fem, pl prop ) and ina (acc) (pl reg), and in (obl), (sg, pl fem, pl prop ) and ina (obl) (pl reg), are obligatory suffixes added to NPs at spell-out. This syntactic fact is established as each nunational marker performs a different syntactic function. The NP, in question, is a part of the maximal projection DP in which all intrinsic and optional features are checked except D as a head. The NP must check the strong formal [D- feature] position as they are visible at LF output. For instance, un/una check [NP, T] , an/ina check [VP, NP] and in/ina check the position of [PP, NP]. Furthermore, such NP must check weak informal [D-features], involving Case property, number and gender and other affixal non interpretable features. Such markers are also visible when thematic relations are checked at spell-out. Theta roles are non interpretable features and are frozen in place after they are checked at spell-out. Such notions are to be discussed in details in the subsequent analysis.

2.2.1. Un and Una as the subject nunation confirm the features of the theta roles of agent, theme, experiencer, instrument and location of a DP in VP and the nominative case feature in EPP.

In order to understand the theoretical checking features of the nunations meant for EPP, the researcher has to give a brief analysis of theoretical perspectives of D as it has unavoidable relevance with the nominative case feature checking and also a brief analysis of the theory of VP as it is related with theta ranking feature checking. D, in Arabic, is a functional but not categorial entity that satisfies the strong feature of EPP. This position is a place to moved or in situ NPs with or without nunations. It has informal features, including case feature of the NP and the Ø- features of number and
gender. An NP cannot check the nominative case unless it is joined to [Spec, TP] in EPP position which is licensed by T. Case in non-interpretable and has weak feature at interface; therefore, it is unaffected by the checking process at all levels of syntax. The theory of VP is licensed in this place to check the type of theta role that the NP in question has. The NP with the nunation un must occupy the position [Spec, VP]. To account for these syntactic features of D and [Spec, VP], the hypothesis (36) is proposed:

36. An NP with the nunation un and una checks a theta role in [Spec, VP] and then moves to [Spec, TP] to check intrinsic as well as optional features of NP excluding the article in D. V must move to [T, TPmax] at LF to head the VSO order.

The researcher may look at spell-out (37) to prove the hypothesis.

In (37), the NP waladun ‘a boy’ is posited in [Spec, VP] to be ready for theta marking. It checks only the theta role of experiencer in the presence of the nunation un. This position in syntax is not licensed for case features; therefore, it has to raise to [DP, TP] and forms theta chain [NP,….j1 and k1]. In this EPP position, it checks the nominative case feature by being the subject as it is licensed by T and agreement features; however, it cannot check D due to nunation. Both respective features are licensed by the same marker at spell-out and interface. Suppose we agree with Traditional Arab Grammarians that un is attached at PF; then there is a straightforward violation to the principle of theta criterion. This means that the NP in question has to check two identical theta roles; one by being in the position of [DP, VP] in the absence of the mentioned marker and the other by being in the position of [DP, TP] in the presence of it. In other words, it creates a confusion to understand the difference between the form of the NP walad and waladun ‘a boy’ in modern standard Arabic. The former is found in the lexicon but the latter is in the structure. There is no way Arabic accepts the former to be in the structure as in [*?ibtasama walad ‘a boy smiled’]. This sentence proves that the nunation is a part of the NP at spell-out; at which all lexical items are posited in the structure for checking but not at PF. In short, case as well as theta checking features are posited in syntax at spell-out and survives at PF through the nunation un after the verb ?ibtasama ‘smiled’ checks T and lands at [T, T']. The researcher argues that the NP waladun checks all compulsory as well as optional features before LF/PF. This NP is inferior to DP as it cannot check the properties of D. If the researcher agrees with Fasi’s observation in (19) that n in rajulan, ‘a man’ is the indefinite article; still the NP waladun ‘a boy’ cannot check [D] position. This is due to the fact that there is sometimes zero option articles as that of the English NP ‘boys’. The researcher argues that Arabic does not incline toward having an indefinite article because n is attached to singular as well
as plural as ?awlaadun ‘boys’. In both situations, the DPs must check the [-Def.P] node only.

This analysis below contains a list of instances in which the nunation un checks a number of theta roles in Arabic syntax at spell-out.

38. [ [tadahrjat TP t1, t2 J1, k1 [kurat-un [ [t2 t1 [j, k1 [t1]]]]]].
   ‘A ball rolled.’

39. [ [tahaamat TP t1, t2 J1, k1 [taai?rat-un [ [t2 t1 [j, k1 [t1]]]]]].
   ‘A plane crashed.’

40. [ [?inhaara TP t1, t2 J1, k1 [bait-un [ [t2 t1 [j, k1 [t1]]]]]].
   ‘A house collapsed.’

41. [ [la?iba TP t1, t2 J1, k1 [ba?tal-un [ [t2 t1 [j, k1 [t1]]]]]].
   ‘A hero played.’

In (38-41), the NPs kuratun ‘a ball’ taai?ratun ‘a plane’ baitun ‘a house’ and ba?talun ‘a hero’ check the theta roles of theme, instrument, location and agent in the position [Spec, VP] with overt un respectively. If we compare un with una the suffix for regular plural for the nominative, we argue that the latter checks the same case and theta roles. Thus, to avoid repetition, no instance is needed. In short, un has specific theta roles restricted to EPP position.

2.2.2. An and Ina confirm the features of the theta roles of agent, theme, experiencer, accompaniment and goal of a DP in the structure [ V, DP] and the accusative case feature in [ Spec4, v’].

For an to be visible at the end of the DP, there has to a transitive verb. It is meant for the objective cases as in the specimen spell-out (42):

42. [ TP Spec1 max [TP Spec2 T’ D’ [TP Spec3 D [TP Spec4 [TP NP Np Un v’ [V NP t1 f1 f2 [V NP t1 f1 f2]]]]]]].
   ‘Zaid wrote a declaration’
The NP *marsuman* ‘a declaration’ is posited in [V, NP] in (42) to check the theta role of theme by the verb *kataba* ‘wrote’ in the position [f1]. As this position is not meant for case feature checking, the NP has to move to [Spec4, v’] to check the accusative case feature by the same V in the same position. It is evident that the accusative nunation *an* is already be attached to the respective NP at spell-out to be able to check the theta role of theme and then the case after movement. If the nunation is dropped at spell-out then, we get the ungrammatical structure [*kataba Zaidun marsuum ‘Zaid wrote a declaration’. In short, the marker *an* is a compulsory factor for theta marking and poses the formal feature of internal position in Spec 4 for case checking.

The analysis contains a list of instances in which the nunation *an* as a specimen checks a number of theta roles in Arabic syntax.

43. *?ajbara zaidun ‘amaran ?an yughaadira*  
forced Zaid Amr to leave  
‘Zaid forced Amr to leave’

44. *?istahaba zaidun ‘amaran ?ila al- makatabati*  
accompany Zaid Amr to det library  
‘Zaid accompanied Amr to the library’

45. *zaara zaidun ‘amaran fi bait -in ma*  
visited Zaid Amr at house loc somewhere  
‘Zaid visited Amr at a house somewhere’

46. *?istamaala zaidun ‘amaran ?an yughaadira*  
persuaded Zaid Amr to leave  
‘Zaid persuaded Amr to leave’

The NPs *‘amaran ‘Amr’* in (43-46) check the theta roles of agent, accompaniment, goal and experiencer respectively. If the researcher compares the NP *‘amaran ‘Amr’* in (43) with the same NP in (46), the former is the agent as it is the subject of the IP *?an yughaadira ‘o leave’* as it belongs to ‘want- type’ verbs and the latter is the experiencer as it is the object of the verb *?istamaala ‘persuade’* that belongs to the same category.

Related to the analysis of *an*, the question of substitution of the object NP *al-duyuufu ‘guests’* in (14a) repeated here as (47) does not arise.

47. *hadarat al- duyuuf- u fašaafah tu kull an*  
attended det guests nom shock hand I each acc  
min hum. of them  
‘The guests attended and I shock hand with each of them’.

The researcher argues the verb *yušaafih ‘to shake hand’* has the ability to absorb the argument theme ‘one’ and the accusative marker *an* because the absorbed DP checks this particular case features. 5

2.2.3. *In* and *Ina* confirm the features of the theta roles of goal, theme, accompaniment, instrument, location and source in the structure [ P, NP] in the maximal projection VP and the features of oblique cases [ dative, comitative, instrumental, locative and ablative of DP in the same position.

An NP with the nunation *in* must be liable for theta marking and case checking in situ. The spell – out (48) illustrates the function of checking as a specimen.
In (48), the DP šadiiqin ‘a friend’ checks the theta role of goal in the position [P, DP] with overt in at spell-out. It also checks the locative case feature in the same position in situ. It is obvious that if in is deleted at spell-out, the sentence [*tahadatha zaidun ?ila šadiiq ‘Zaid talk to a friend’] reads incorrect. Thus, if it is added at PF, then it will check double theta roles; one for being at spell-out without in which is not acceptable in Arabic syntax and the second for being at PF but with in. This proves that in is a compulsory feature for the formal features as being a DP of a preposition and the informal features of case and theta criterion at this position.

This part contains a list of instances in which the nunation in checks a number of theta roles in Arabic syntax shown in the specimens below.

49. mashai -tu ma c ahmad -in
    walked I with Ahmed
    ‘I walked with Ahmed’

50. dhahab -tu ?ila al baiti bi saiyaarat -in
    went I to det house by a car
    ‘I went to the house by a car’

51. jalas -tu fi maktab -in
    sat I in an office
    ‘I sat in an office’

52. ?ista’ar -tu majallatan min maktabat -in
    borrowed I a magazine from a library
    ‘I borrowed a magazine from a library’

53. ?a c tai tu al- kitaab a li ahmad in
    gave I det book acc to Ahmed
    ‘I gave the book to Ahmed’

In (49-53), the NPs ahmadin ‘Ahmed’, saiyaaratin ‘a car’, maktabatin ‘an office’, maktabatin ‘a library’ and ahmadin ‘Ahmed’ carry the same overt realization in and check the theta roles of accompaniment, instrument, location, source and goal respectively. The marker is posited at spell – out and retained up to PF to confirm the checked features whether weak as case and theta roles or strong as object grammatical function of a preposition. If it deleted at spell-out, we get wrong
interpretation at Pf as the NP in use bear two theta roles which is a direct violation to the principle of theta criterion that says “every argument bears one theta role and each theta role is assigned to one and only one argument” (c.f, Chomsky 1981, p. 36 and 1995, p. 187-188)

Related to this analysis, the process of substitution of in in (15a) is unacceptable for the following reason: syntactically the adverbial of time biina?idin ‘then’ is the pro-form for the deleted clause jaa?al-sadiiqu ‘a friend came’; the nunation in alone cannot recover the deleted clause. The researcher may compare (15a) with (54) in which the pro-form ‘then’ can recover the omitted adverbial phrase ‘one morning’ in an anaphoric relation but not absorption.

54. one morning the caption invited us to the bridge. He told us then about his secret order (Quirk (1990, p. 252)).

Thus, in is the assign of locative and cannot be segregated from the pro-form biina?id ‘then’; it performs the grammatical function subject complement.

In short, the phono-syntactic nunations dicussed above are attached to DPs occupying different grammaical functions. Each is restricted to a particular Case and specific theta roles. The DP has to check certain optional as well as compulsory features at spell-out and infrface levels. It has been argued that n in (19) and (37) cannot be the indefinite article in Arabic syntax as its being covert makes the DP defect; on one hand, and it is added to plural DPs posssing the same features in both forms, on the other. It is also decided that the nunation in the accusative cannot substitute another DP because it is the function of the transitive lexical verb ysaafih ‘to shake hand’ in (14a) that has the ability to absorb the theme daif ‘a guest’ of a generic reference. Also, the oblique in in(15a) does not have the ability to substitute the adverbial clause jaa?al-sadiiqu ‘the friend came’; it is a part of the pro-form biina?id ‘then’ which has the anaphoric relation with the clause.

6. The Semantic Analysis

6.1. [-Def'] Checks generic / non specific references as feature

In addition to the formal features of syntax mentioned above, D involves the generic and non-specific feature of indefiniteness posited in [-Def.P] node. The researcher will check the nature of this feature and examine its contribution to the semantic analysis in Arabic syntax. For this purpose, the following hypothesis is proposed.

55. DP with nunation checks the weak feature of generic at [-Def, Def'] but not D within the maximal projection DP at spell-out and interface but deleted at LF.

As far as X-bar syntax in relation to DP marked by any of the nunations in Arabic is concerned, the researcher argues that the feature D which is the category of EPP and object grammatical positions can be expanded further to involve the maximal projection of [- indefinite phrase] henceforth [-Def.P]. This semantic feature is weak and cannot be interpreted at LF. The node of [- Def] as a sub part of [-Def.P] is visible in the paradigm only if any of the nunations is overt to indicate the generic feature at the interface only. To account for the indefiniteness property in DP, the module (56) is posited:

56. 

The module (56) illustrates that the DP projects the semantic functional entity [-Def.P] and the categorical entity NP at spell-out. The [Spec, DP] and [D, D’] are empty categories. However, [Spec, -Def.P] can sometimes be filled by the diectic items, such as hadha ‘this’, dhaaka ‘that’, ha?ula? ‘these’ and tilka ‘those’ though the reference remains generic. The maximal projection [-Def.P] is branched to [-Def’] as the head and the NP as a complement. [-Def] accounts for the presence of generic feature if the DP is [-proper] and non specific if the DP is [ + proper] at interface.
The choice of this feature is basically based generated in the NP in all the grammatical positions in case the nunations are overt. With the help of the hypothesis (55), the optional feature of [-Def] are to be discussed from a new perspective for better understanding of semantic connotations of nunations in Arabic syntax. To account for the semantic feature of [-Def] shown, the specimen (57a) is given.

\[57a. \text{mohammad} \ -\text{un} \ \text{walad} \ -\text{un} \ \text{nashii} \ -\text{un} \]
Moh’d nom boy nom active nom
‘Mohammad is an active boy.’

\[57b.\]

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<th>TP</th>
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<td>[+ prop.ph]</td>
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<td>[ + proper]</td>
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<td>j1</td>
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<tr>
<td>Moh’d</td>
<td>nom</td>
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</table>
‘Mohammad is an active boy’

In (57b), the NP mohammadun ‘Mohammad’ in [Spec, VP] checks the theta role of experiencer as an optional feature with the overt nunation un. The DP raises to [-Def, -Def’] to check the formal feature grammatical subject of EPP and the optional Ø-features of the NP [i.e., number, gender and the nominative case]. The DP, in this particular position, checks the nominal feature of [+ proper] and the semantic feature of non specific]. As the optional features are weak at the output of LF, they are omitted after being checked. Thus, [-Def.P] is an optional projection and deleted at LF. It is evident that the nunation un is compulsory added at spell-out to check theta role in VP and to check case in the formal position EPP.
7. CONCLUSIONS

The researcher has argued that the nunation is no more an optional stagnated nasal n added to the NP at PF to be pronounced with or without assimilation. We have decided that there are multiple phono-syntactic nunations that follow the structure [v+n] as for un, an and in and others that undergo the structure [v+n+v] as for una and ina. The preceded vowel is nasalized if it occurs in the environment (22a) whereas it is not if it happens to be in the environment (22b). As far as the syntactic features are concerned, we have argued the un and una are indicators for the nominative in [DP, T] in (37), an and ina for the accusative in [Spec, v'] in (41) and in and ina for the oblique in [P, DP] as in (47) respectively. The cases are checked by the provided case checkers and the nunations are only indicators at PF/LF. As cases are optional (48-53). We have argued that the nunation and non interpretable features, they do not survive at the respective levels. We have found a bound relation between each vowel nunation and specific theta roles; for instance, the marker un is visible with the theta roles of goal, accompaniment, instrument, location and agent as in (38-41); the nunation an is visible with the theme, agent, accompaniment, goal and experiencer as in (42-46); the nunation in is visible with the theta roles of goal, accompaniment, instrument, location, source and theme as in (48-53). We have argued that the n has nothing to do with substitution; however, it is the verb yaa?atihu ‘to shake hand’ that has the ability to absorb the theme that can be recovered by it but indicated by the marker in as in (14a) at LF. Likewise, it is the mechanism of anaphoric relation that enables the pro- form hiina?/idh ‘then’ to recover the omitted clause jaa?a al-shadiqyu ‘the friend’ came in (15a). N can never function as an indefinite article as claimed by Fasi Fehri in (19); in stead, we have argued that Arabic has zero indefinite article as it is attached to the singular common rajulin ‘a man’ in (19), to proper name ‘aliyu ‘Ali’ in (1a) and to plural proper ziyyu’dun ‘men and each one is named Zaid’ in (3a) and to the common regular plural mu’aliwuuna ‘men teachers’ in (18a). Singularity of the NP is shown either by analogy with the plural form if it is regular as in mu’alim ‘a teacher’ and mu’alimuuna ‘men teachers’ or by the process of vowel change with irregular nouns as in the singular kursi ‘a chair’ and the plural karaasi ‘chairs’. The researcher argues that irregular plurals are unpredictable in Arabic as it has various morphological processes. Related to the point, the researcher has argued that the semantic value of indefiniteness is no more an abstract notion in syntax; it is represented by features in the module (56) in which the node [-Def,P] is concretely occupying a position in X- bar syntax. If the DP is proper, the feature [+ prop] occupies the position complement of [Def] where the non – specific feature is overt; however, if the DP is [-prop],
the generic reference feature is the only substitute as in (57b).

To sum up: With these new views of Minimalist Program of Chomsky (1995), we have tried to solve the confusions engulfl older the phonological, structural as well as the semantic functions of the nasal markers in Modern Standard in an appropriate and scientific manner. The researcher has inferred that the nasal $n$ is a component of two full structures and cannot occur in segregation. The structures $[v + n]$ and $[v + n + v]$ contribute to form a number of nunational markers and not to be restricted to only one form. The new versions have specific syntactic functions represented by features related to Case and theta marking checking at spell-out but retained up to LF/PF. We have argued that an NP with any such markers occupies a lower position in the hierarchy because it cannot be elevated to the [D – position] in DP. Finally, all the nunational markers share the maximal projection [ -Def.P] in X-bar syntax to indicate either indefiniteness or non – specficeness depending on the type of DP to which they are attached.

**Notes**

(1) Non- Original Nunation: This type of nunation is of different categories not related to an NP in particular. It is classified as follows:

1. Apart of the lexical NP as in hasan ‘Hasan’
2. Al-tranum ‘the musical nunation’: a stagnated nasal consonant added at the end of a verse but not prose as an indicator of a free rhyme.

Jareer says:

<table>
<thead>
<tr>
<th>Arabic</th>
<th>English</th>
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<tr>
<td>&quot;the musical nunation&quot;: as in hasan ‘Hasan’</td>
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3. Al-hikaayah ‘the narrative nunation’: as in jaa?at badr-an ‘ Bader came’. It indicates that the narrator means a girl whose name is a sign of beauty as the appearance of a moon.
4. Al-daruurah ‘the essential nunation’: as in faatimah ‘ Fatima’. This kind of nunation is added to proper names only when the lexical word occurs in a verse.

Al- faraşdag says:

<table>
<thead>
<tr>
<th>Arabic</th>
<th>English</th>
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<tr>
<td>Haada ibnu faa?mat-in ?in kunta jaahilahu</td>
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<tr>
<td>Bijaddi-?anbiyyaa?u allaahi qad kutim</td>
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<td>&quot;the narrative nunation’: as in jaa?at badr-an ‘ Bader came’.</td>
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5. Al- munaada ‘the nunation of vocative: It indicates that the NP is always in the nominative as in [yaa matar-un ‘oh rain’.

6. Al-Tanween Al-laahiq bi ?ith ‘ the nunation that is attached to the adverbial then’ as in [ wa?antum hiina?ith-in tanduruun ‘ and ye are then looking on’ where hiina?ith ‘then’ stands hiina?ith balaghat al-rauh al-hulqum ‘ at the time when the spirit has reached the throat’

(2) Al – mu?rab ghir al- mun?qarif ‘ A declinable noun without nunation’ : A noun whose final inflection is changed as per the grammatical function it occupies but without the attachment of nunation as in (1):

<table>
<thead>
<tr>
<th>Arabic</th>
<th>English</th>
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| 1a. jaa?a ahmad-
| came Ahmed u. nom |
| ‘Ahmed came’. |
| 1b. ra?i- tu ahmad-
| saw I Ahmed a. acc |
| ‘I saw Ahmed’. |
| 1c sallam tu ‘ala ahmad-
| said hello I to Ahmed a gen |
| ‘I said hello to Ahmed’ |

As claimed by Baiti (1992, p. 378), in (1a,b andc) the NP ahmad ‘Ahmed’ is a proper name that cannot be marked by the nunation because this kind of NP can be declined without the attachment of nunation. It is marked by u for the nominative but a for the accusative and genitive in (1b, and 1c) respectively. If we compare (1) with (2), we realize that as claimed by Hasan (1975:33, footnote3) has confirmed that the latter is marked by the regular case marking un, an and in for the nominative, accusative and genitive cases respectively for semantic purpose that is non specific. The addition of n in(2) but not in (1) poses a problem to the presence of nunation at the end of proper names Arab syntax.
It is evident that the nunation is added to an adjective as that of a noun. This is because adjectives are treated traditionally as being parts of nominal. Thus they carry the same number, person and gender in addition to agreement as well as case marking.

Fasi Fehri (1980, p. 25-29) has treated "n" as an indefinite article segregated from the vowel.

For more of the analysis of theta absorption of the theme in Arabic syntax see Jalabneh 2000, p. 274-254.

For of the analysis of V- movement in Arabic syntax see Jalabneh 2004: 36-39.

<table>
<thead>
<tr>
<th>Arabic</th>
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Notice: the researcher has a reference to the transliteration but not the phonetic symbols while writing the Arabic lexicon in this text work. (For more of the Arabic symbols in the International Phonetic Association see Fari 2006: 90)

ABBREVIATIONS

Acc: accusative case
CHL: computational channel
comm.: commutative case
dat: dative case
det.: determiner
DP: determiner phrase
D', D: determiner
D-. : features of NP
- Def, P: indefinite determiner phrase
- Def : indefinite
EPP: extended projection principle
erg: ergative case
fem: feminine
gen: genitive case
inst: instrument
LF: logical form
N'' / NP: noun phrase
Nom. : nominative
Nun: nunation
Multiple Functions of the...

obl:-oblique cases
PF.:phonetic form
P" / PP:prepositional phrase
Pres:present
prop:proper name
T", TP :tense phrase
TP MAX:tense maximum
V", VP :verb phrase
V'V :verb
imper.:imperfective
Loc:loc
Masc.:masculine
nom:nominative
pl:plural
Spec.:specifier
Sg.:singular

REFERENCES

لا يمكنني قراءة النص العربي المكتوب بالخط العربي. يرجى تقديم النص باللغة العربية المكتوبة بالخط العربي المعايير.