Strategies for Forming the Wh-Interrogative in Najdi Arabic

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ABSTRACT	*Published Online: 15 August 2022
This paper examines the four strategies for forming the wh-interrogative described by Aoun, Benmamoun, and Choeiri (2010): the gap strategy, the resumptive strategy, the class II resumptive strategy, and the in-situ strategy in the Najdi Arabic dialect. Aoun et al. (2010) investigated these strategies in standard Arabic and Lebanese Arabic. Some Arabic dialects use a subset of these strategies, while others use all four, at least in specific contexts. The contribution of this paper is to shed light on how Najdi Arabic employs these strategies in forming wh-interrogatives in terms of their syntactic properties. With respect to the distribution of wh-interrogatives into arguments and adjuncts, all argumental wh-interrogatives can be utilized in the gap, the class II resumptive, and the in-situ strategies, while a subset can be used in the resumptive strategy. On the other hand, all adjunct wh-interrogatives are employed in the gap and in-situ strategies, but only one selective adjunct wh-word can be applied in the resumptive strategy and the class II resumptive strategy	**Keywords:** wh-interrogative, gap strategy, resumptive strategy, class II resumptive strategy, in-situ strategy

1. INTRODUCTION

1.1. Background

An *interrogative* is a grammatical feature that has the force of question in which the interrogative sentences have the syntactic structure of questions. The goal of interrogative sentences is to obtain answers to yes-no questions or to gain information by using the marked wh-words, such as what, when, where, which, who, and how. Languages vary in the ways they form interrogative sentences. Even dialects in the same language form interrogative sentences differently by employing various strategies and several syntactic, morphological, and semantic structures. This paper aims to provide an investigation of interrogative sentences in the Najdi Arabic dialect from a syntactic perspective.

Najdi Arabic (henceforth, NA) is a variety of Arabic language spoken in the Najd region in the center of Saudi Arabia which includes the capital city of Riyadh, and the two regions of Qassim and Hail. Standard Arabic is the official language in Najd where diglossia (i.e. the situation in which the same language community uses more than one dialect or language) is explicit. According to Ferguson (1959), Standard Arabic and spoken Arabic occur in a diglossic situation.

NA has distinctive linguistic forms that can be realized only by Najdi speakers. One of these linguistic forms is the concept of interrogative formation. In general, NA may form wh-questions by moving the wh-phrase into the initial position of the sentence (the specifier of CP), or it can keep the wh-phrase in-situ. This paper investigates the range of possible strategies of question-formation in NA, and it provides the syntactic representations associated with each of them. In terms of a theoretical perspective, this paper uses the generative syntax, particularly the current version proposed by Chomsky (1993, 1995) a minimalist program (MP).

Numerous studies have investigated the formation of wh-questions, beginning with Chomsky (1957). Chomsky was the pioneer in offering two transformational rules to examine interrogatives in English: optional and obligatory rules. He accounted for the syntactic movement of the wh-phrase, and he investigated the underlying outcomes of that movement. He argued that there is a trace left in the position of the wh phrase (Chomsky, 1981). Furthermore, he proposed that any language may have either a strong feature of [+wh] that can move wh-phrase or a weak feature of [+wh], which leads to wh-in situ (Chomsky, 1993, 1995).

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Other scholars in theoretical linguistics have investigated the formation of wh-questions. Bach (1971) claimed that wh-words are always moved to the left position. Accordingly, Culicover (1976) attempted to investigate the relation between the initial position of the wh-question and the inversion in the sentence.

The rest of the paper is organized as follows. Section (2) reviews the analyses that have already been conducted on the formation of wh-questions. Section (3) provides a description of wh-questions in NA. Section (4) examines the possible strategies for forming wh-questions in NA. Section (5) concludes the paper.

1.2. Research Question

What are the possible strategies of forming wh-question utilized in Najdi Arabic in terms of their syntactic properties?

2. PREVIOUS ANALYSES

2.1 Previous research on other varieties of Arabic

In Arabic literature, the formation of wh-questions has been investigated by numerous researchers, such as Wahba (1984), Osman (1990), Shlonsky (2002), Soltan (2011), Gad (2011), Alshorafat (2013), Fakih (2014), Soliman (2016) and others. This section reviews some studies that have investigated the formation of wh-questions in other varieties of Arabic.

Wahba (1984) examined wh-phrases in Egyptian Arabic (EA) dialect under the framework of the government and binding theory of Chomsky (1981). She claimed that the main strategy for forming wh-questions in EA is that the wh-phrase appears in the head C, and it is co-indexed with a resumptive pronoun. Additionally, Wahba classified wh-phrases as nominal and non-nominal. She argued that a relative clause must head a nominal wh-phrase since it has a resumptive pronoun as in 1 (a), while a non-nominal wh-phrase requires the presence of an empty category and the absence of the relative clause, as in 1 (b).

1. (a) miin$_i$ illi Mona ʃaafit-uh$_i$?

What that Mona see (3SF.PAST)?

'Who did Mona see?'   (Wahba, 1984, p. 21)

(b) feen$_i$ Mona raahit e$_i$?

Where Mona go (3SF.PAST)?

'Where did Mona go?'   (Wahba, 1984, p. 26)

Shlonsky (2002) examined two main strategies for forming wh-questions in Palestinian Arabic (PA). The first strategy is called the first class of interrogatives. There, the wh-phrase is moved to the specifier of CP. In this strategy, the fronted wh-phrase is linked to a gap, as shown in 2 (a):

2. (a) miin$_j$ l-asad akal e$_i$ mbaarih?

Who the-lion eat (3SM.PAST) yesterday?

'Who did the lion eat yesterday?'   (Shlonsky, 2002, p. 138)

The second strategy for forming wh-questions identified by Shlonsky (2002) is known as the second class of interrogatives. In this strategy, the wh-phrase is moved to the initial position to play the role of the subject. It is followed by the predicate, which is a free relative clause, *illi*.

(b) [anii bint]$_i$ illi l-asad akal-ha$_i$ mbaarih?

Which girl that the-lion eat (3SM.PAST)-her yesterday?

'Which girl did the lion eat yesterday?'   (Shlonsky, 2002, p. 139)

Shlonsky (2002) also claimed that the second strategy of the II class of interrogatives includes a bi-clausal copular construction. Its subject is the wh-phrase, and the predicate is a nominal free relative clause. The relative pronoun heads the CP predicate.
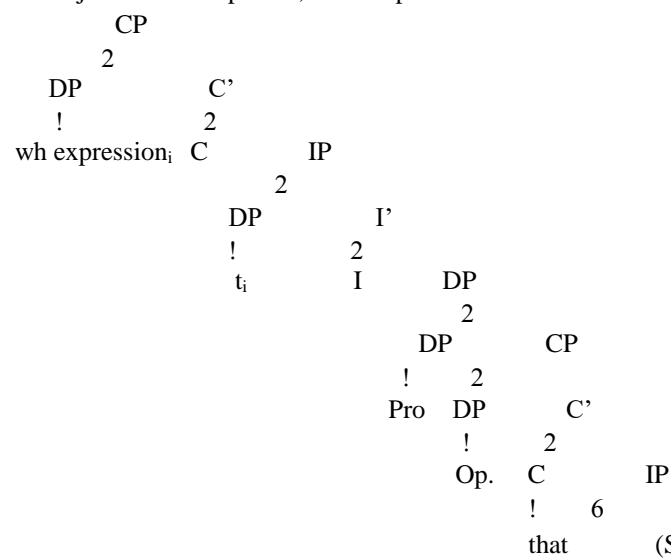
```
        CP
        2
    DP           C'
    !            2
wh expression_i  C        IP
                      2
                  DP           I'
                  !            2
                  t_i      I        DP
                                    2
                                DP       CP
                                !        2
                               Pro   DP       C'
                                     !        2
                                    Op.   C        IP
                                     !        6
                                    that        (Shlonsky, 2002, p. 152)
```

Furthermore, Soliman (2016) discussed the different wh-questions available in Syrian Arabic (SA). She demonstrated all the possible word orders in SA and, she examined the strategies for forming wh-questions in SA: the gap strategy, the long distance strategy, which includes moving a wh-phrase across clausal boundaries, the class II strategy, the resumptive strategy, and the in-situ strategy.

3. (a) [miin]$_i$ t$_i$ fataħ l-bab?   *Gap strategy*
Who opened the-door?
 "Who opened the door?"   (Suliman, 2016, p. 44)

(b) [ʃu]$_i$ ʔal-l-ek Iyad tˤml-i-l-u t$_i$ ʕa-l-ʕasha?   *Long distance strategy*
What said-to-you Iyad   make-2.S.F.SU-for-3.S.M.OBJ   on-the-dinner?
"What did Iyad ask you to make for him for dinner?"   (Suliman, 2016, p. 45)

(c) [miin] illi ʃaf-ət-uu Mona b-l-matˤam?   *Class II strategy*
Who that saw-3.S.F.SU-3.S.M.OBJ Mona in-the-restaurant
"Who did Mona see in the restaurant?"   (Suliman, 2016, p. 47)

(d) miin/ʔayya maarid zarit-u Nadia?   *Resumptive strategy*
who/which patient visited-3.S.F-3.S.M.OBJ Nadia
"Who/which patient did Nadia visit?"   (Suliman, 2016, p. 52)

(e) ʃft-i miin b-l-matˤam?   *In situ strategy*
saw-2.S.F who in-the-restaurant
"Who did you see in the restaurant?"   (Suliman, 2016, p. 57)

She also investigated the multiple wh-questions in SA. She stated that they are employed by moving one wh-phrase and keeping the other(s) in situ. She argued that the analysis of ellipsis could not explain the facts in multiple wh-questions in SA, particularly the requirement for inserting a coordinative head before adverbial wh-phrases.

2.2. Previous research on NA

NA has been studied in the literature by Abboud (1964), Ingham (1994), Aldawyan (2008), Albaty (2013), and Alshammari (2019), among others. In this section, I provide an overview of the formation of wh-question through selective references to NA literature.

Albaty (2013) investigated wh-in-situ in NA and provided two major analyses for wh-in-situ languages: LF movement and the unselective binding analysis. LF movement claims that the wh-phrase in in-situ languages undergoes movement after Spell Out, i.e., moves covertly (Albaty, 2013, p. 5). The unselective binding analysis argues that the wh-phrase is in-situ, but is bound by a null question operator in spec,CP (Albaty, 2013, p. 6). He also examined the islands' insensitivity to the Najdi data that supports the unselective binding analysis and rejects the covert movement analysis. He argued that the best analysis for wh-in-situ in NA is the unselective binding approach because of the insensitivity to islands of NA. Accordingly, covert movement is not possible in NA. Albaty (2013) focused on issues related to in-situ strategy, and he was not concerned about the other possible strategies for forming wh-questions in NA.

Alshammari (2019) investigated the syntax of conjoined question phrase construction (such as when and how did you….?) in NA. He argued that NA allows these questions under certain constraints, which are sensitive to fronted conjoined wh-phrases. In the first constraint, when the subject and the object are wh-phrases, the subject wh-phrase is what should be fronted, while the object wh-phrase remains in situ.

4. (a) min ʃaf wiʃ?
who see.PAST.3SG.M. what
'Who saw what?'
(b) *wiʃ ʃaf min?
what see.PAST.3SG.M. who
Intended: 'Who saw what?'   (Alshammari, 2019, p. 6)

The first question (4a) is grammatical because only the subject wh-phrase *min* appears at the beginning of the question, whereas the second question (4b) is ungrammatical because the object wh-word *wiʃ* is fronted at the beginning of the question.

The second constraint concerns cases with an argumental wh-phrase and an adjunct wh-phrase. In this case, the adjunct wh-phrase should be fronted, and the argumental wh-phrase should be an object wh-phrase, which remains in situ.

5. (a) meta ʃaaf Ali min?
when see.PAST.3SG.M. Ali who
'When did Ali see whom?'
(b) *min ʃaaf Ali meta?
who see.PAST.3SG.M. Ali when
Intended: 'When did Ali see who?' (Alshammari, 2019, p. 8)

The first question (5a) is grammatical because the fronted adjunct wh-phrase co-occurs with the in-situ object wh-phrase. On the other hand, the second question (5b) is ungrammatical because the object wh-phrase is fronted at the beginning of the question, while the adjunct wh-phrase remains in situ.

The third constraint concerns two fronted adjunct wh-phrases, which must be separated by the coordinating conjunction *wa* 'and'.

6. (a) wein wa-meta ʃaaf Ali al-baas
where and-when see Ali DEF-bus
'Where and when did Ali see the bus?'
(b) *wein ʃaaf Ali al-baas meta
where see Ali DEF-bus when
Intended: 'Where and when did Ali see the bus?' (Alshammari, 2019, p. 9)

The first question (6a) is grammatical because both fronted conjoined wh-phrases are adjuncts, whereas the second question (6b) is ungrammatical because one of the wh-adjuncts remains in situ.

Accordingly, Alshammary (2019) argued that for the first constraint, the head of CP is endowed with an EPP feature. C' attracts the first wh-phrase it c-commands to its specifier. For the second constraint, he assumed that the adjunct wh-phrases are moved to the left periphery because they have a [Q] feature that is stronger than argumental wh-phrases. As for the third constraint, he claimed that to solve the obvious tension of moving two wh-phrases into one structural position, NA devises a kind of pseudo-coordination.

A large body of literature offers insights into forming wh-interrogatives, and many studies investigate the formation of wh-interrogatives in Arabic varieties. However, there is scant research on the strategies for forming wh-interrogatives in NA. This paper examines these strategies in terms of their syntactic properties for both argumental and adjunct wh-interrogatives in NA.

3. DESCRIPTION OF WH-QUESTIONS IN THE NAJDI ARABIC DIALECT.

Many researchers classify the wh-questions as nominal and non-nominal words (Wahba, 1984; Osman, 1990). Osman (1990) mentioned the nominal as *relativized* wh-question words. On the other hand, Aoun et al., (2010) classified wh-interrogative words into nominal and adverbial. They identified wh-interrogative categories in standard Arabic, Lebanese Arabic, and Egyptian Arabic, while Albaty (2013) presented the wh-phrases in NA as nominal and adverbial (see table 1).

Table 1

Nominal	Translation	Adverbial	Translation
Meen	'who'	ween	'where'
eiʃ/ weiʃ	'what'	mita	'when'
ʔey	'which'	Keef/ ʃloon	'how'
kam	'how many/ much'	leeʃ/ warah	'why'

Soltan (2011) and Gad (2011) classified wh-interrogatives in EA into two types: argument wh-interrogatives and adjunct wh-interrogatives. According to Gad (2011), the wh-interrogatives in NA are represented as follows:

Wh-phrases in NA

3

Argument wh-phrases   adjunct wh-phrases

9   ϖς

Men   eiʃ/ weʃ   ʔay (NP)   keef/ ʃloon mita ween leeʃ/warah
'who' 'what' 'which (NP)'   'how' 'when' 'where' 'why'

In this paper, I focus on the distribution of argument and adjunct wh-phrases to show their differences in applying the strategies for forming wh-questions in NA. Furthermore, I added *kam*(NP) 'how many (NP)' to the argument wh-phrases in NA.

NA sentences can have two kinds of word order: SVO or VSO. According to Ouhalla (1991), if the subject remains in the verb phrase, and the verb moves to the head of tense, then the word order is VSO. On the other hand, if the verb remains in tense, and the subject moves, then the word order is SVO. In NA, both word orders are used in both declarative and interrogative sentences. However, the most frequent used form in declarative sentences is SV, while the VS form is used in both argumental and adjunct interrogative sentences, especially in the existence of a complement to the verb in questions. Consider the following examples:

7. (a) Ahmad katab addars
Ahmad wrote-3.S.M Def-lesson
'Ahmad wrote the lesson'
(b) weʃ katab Ahmad?   *(argument wh-interrogative)*
What wrote-3.S.M Ahmad?
'What did Ahmad write?'

(c) leeʃ katab Ahmad?   *(adjunct wh-interrogative)*

Why wrote-3.S.M Ahmad?

'Why did Ahmad write?'

4. ANALYSIS OF STRATEGIES FOR FORMING WH-INTERROGATIVES IN NA

According to Aoun et al., (2010), there are four strategies for forming wh-interrogatives across Arabic dialects, three of them include fronting the wh-constituent: the gap strategy, the resumptive strategy, the class II resumptive strategy, and an in-situ strategy. Some Arabic dialects use a subset of these strategies, while others use all four at least in certain contexts. For example, the in-situ strategy is not available in Standard Arabic, and the gap strategy is not used in EA. I have assumed that NA is a dialect that can demonstrate all four strategies in forming wh-interrogatives, but not with all argumental and adjunct wh-interrogatives. Some adjuncts are not possible in some strategies, so they use arguments instead.

4.1. The gap strategy

In forming a gap construction, the wh-interrogative is moved to the left side and linked to a gap in the internal position of the question. This gap corresponds to an empty position inside the question occupied by a trace (t), which agrees with the wh-constituent in the initial position. According to Aoun et al. (2010), this strategy does not impose restrictions on the nature of their antecedents. The gap construction has a productive use in NA, as in most Arabic dialects. It can be employed in all argument and adjunct wh-interrogatives, as shown in the following examples:

8. (a) ʔay ktab/ kam ktab/min/ weʃ$_i$ axað t$_i$ Ahmad?   *(argument wh-interrogative)*

Which book/ how many book/ who/ what took-3.S.M Ahmad?

'Which book/ how many books/ who/ what did Ahmad take?'

(b) meta/ ween/ keef/ leeʃ$_i$ nemt t$_i$ ʔams?   *(adjunct wh-interrogative)*

When/ where/ how/ why slept-2.S.M yesterday

'When/ where/ how/ why did you sleep yesterday?'

Furthermore, the NA allows gaps in relative clauses with only argument wh-question phrases. This is considered a fifth strategy in some studies, such as Alqarni (2019), who claimed that this strategy is the class II gap strategy in which it includes a gap inside the relative clause. Consider the following examples,

9. (a) ʔay/kam sədeeq/ min/ weʃ$_i$ ʔlli ʃeft t$_i$ ʔams?   (argument wh-interrogative)

Which/ how many friend/ who/ what saw-2.SG.M yesterday

'Which/ how many friends/ who/ what is that you saw yesterday?'

(b) *meta/ ween/ keef/ leeʃ$_i$ ʔlli rah t$_i$ Fahad?   (adjunct wh-interrogative)

When that ate-2.SG.M

'When is it that you ate?'

As mentioned previously, the wh-expression in the gap strategy is moved from its canonical position inside VP to the initial position occupying the specifier of CP. This operation is known as the Merge operation, particularly the internal merge operation in MP in which the element merges with other elements and changes its structure. Moving the wh-expression leaves a trace in the original position. Thus, the moved wh-interrogative is bound to its trace, as shown in the following syntactic tree, representing sentence 5 (a).

```
                    CP
                    2
           DP              C'
 ʔay ktab/ kam ktab/min/weʃ_i      2
                        C         TP
                       [+Q]        2
                             DP         T'
                                        2
                                  T         VP
                                 PAST        2
                                       DP                           V'
                                        2
                                       V         VP
                                      axað_k      2
                                             DP        V'
                                          Ahmad        2
                                                   V         t_i
                                                   t_k
```

According to Aoun et al. (2010), in the gap strategy, the subject is base generated within the shell of VP, whereas a null expletive pronoun satisfies the condition of the extended projection principle, which requires the clauses to have a noun phrase or determiner phrase in the subject position (the specifier of tense).

4.2. The resumptive strategy

Whereas all wh-interrogatives can involve the gap strategy in NA, there are restrictions on which wh-phrases can appear in the resumptive strategy. The resumptive strategy corresponds to the gap strategy in that the wh-phrase is initially moved to the clause. However, its position is occupied by a pronominal element attached to the sentence's main verb. According to Aoun et al. (2010), adjunct wh-words are excluded from the resumptive strategy based on their investigation of standard Arabic and Lebanese Arabic dialects. Soltan (2011) is with them from his investigation of wh-words in the EA dialect. In NA, only the argument wh-interrogatives, *ʔay* NP 'which NP', *kam* NP 'how many NP', and the adjunct wh-interrogative *ween* 'where' can be resumed by a pronoun. Other argument and adjunct wh-interrogatives are not resumptive in NA.

10. (a) ʔay wahid ʃəft-uh?   (argument wh-interrogative)

Which one saw-2.S.M-him

'Which one did you see?'

(b) Kam soa'al hallet-uh?   (argument wh-interrogative)

How many question answered-2.S.M

'How many questions did you answer?'

(c) Ween rəht-l-uh ʔams?   (adjunct wh-interrogative)

Where went-2.S.M-to it yesterday

'Where did you go to yesterday?'

(d) *mita wasalt-uh ʔams?   (adjunct wh-interrogative)

when arrived-2.S.M-it yesterday

'When did you arrive?'

Indeed, the reason there are only two complex argument wh-words (*ʔay* NP 'which NP' and *kam* NP 'how many NP') and the adjunct wh-word *ween* 'where' is not apparent in the syntax, since they can move to the initial-periphery and leave a gap, as previously noted in 5 (a) and (b). It is noteworthy that any wh-word can be expressed by using *ʔay* NP 'which NP' or *kam* NP 'how many NP', and they can employ the resumptive pronoun.
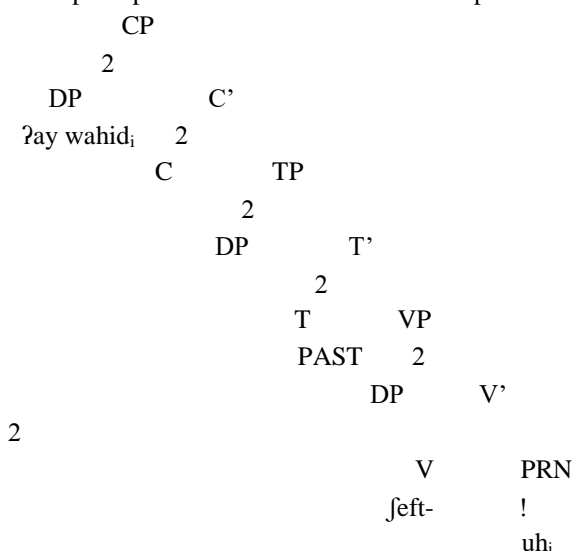
11. (a) ʔay tareeqah sawwet-ha?

Which way did-2.S.M-it?

'In which way did you do it?

(b) ʔay sa'ah wasalt fi-ha ʔams?   (argument wh-interrogative)

Which hour arrived-2.S.M in-it yesterday

'Which hour did you arrive?'

The internal structure of these resumptive wh-phrases is that the wh-word is merged with the specifier of CP while the resumptive pronoun remains in the internal position of the sentence, as shown in the following representation of sentence 7 (a):

```
        CP
        2
   DP          C'
 ʔay wahidᵢ   2
           C      TP
                  2
              DP      T'
                   2
                 T      VP
                 PAST    2
                     DP      V'
2
                         V      PRN
                       ʃeft-      !
                                  uhᵢ
```

4.3. The class II resumptive strategy

The class II resumptive strategy in NA also is occupied by a pronominal element with a relative clause headed by the complementizer *ʔlli* 'that' added to resumptive wh-interrogatives. All argument wh-interrogatives *min* 'who', *weʃ/ ieʃ* 'what', *ʔay* 'which' and *kam* 'how many' as well as the adjunct wh-interrogative *ween* 'where' are employed in class II resumptive strategy.

The adjunct wh-interrogatives *mita* 'when' and *leeʃ/ warah* 'why' are excluded from this strategy. Moreover, in the class II resumptive strategy, an optional copula *hu* can be added to the argument wh-question *min* 'who' and *weʃ* 'what' to be *weʃ/min-hu ʔlli ..?*. Additionally, the optional copula *–uh* (for the male gender) or *–hi* (for the female gender) can join the adjunct wh-question *ween* 'where' to be *ween-uh(hi) ʔlli ..?*

12. (a) weʃ/ min (hu) ʔlli ʃeft-**uh**?   (argument wh-interrogative)
What/ who that saw-2.S.M-him
'Who is it/he that you saw?'
(b) Kam/ʔay soa'al ʔlli hallet-**uh**?   (argument wh-interrogative)
How many question / which question that answered-2.S.M
'How many questions /which question is it that you answered?'
(c) Ween-(uh) ʔlli rəht-l-**uh** ʔams?   (adjunct wh-interrogative)
Where that went-2.S.M-to it yesterday
'Where is it that you went yesterday?'
(d) *mita ʔlli wasalt-h?   (adjunct wh-interrogative)
when that arrived-2.S.M
'When is it that you arrived?'

Accordingly, the syntactic structure of the class II resumptive wh-interrogatives is shown through sentence 9 (a),

```
          CP
         2
   DP            C'
  weʃi/Mini     2
             C       TP
           alli      2
               DP        T'
                2
               T      VP
             PAST    2
                   DP      V'
ti     2
                        V     VP
                       ʃeft   2
                             V    uhi
                             ti
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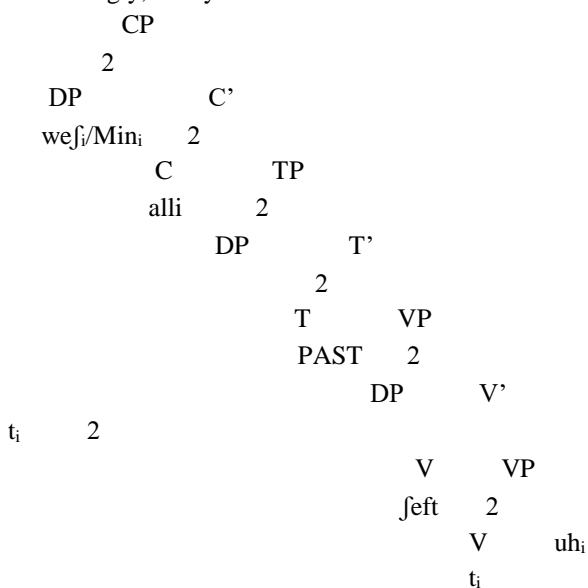
According to Soltan (2011), adjuncts, in general, are not amenable to the class II resumptive strategy in EA and other Arabic dialects. As shown in 9 (c), one of the adjuncts can be utilized in the class II resumptive strategy in NA, the same adjunct that can be resumped. The restriction to employing this strategy with most adjunct wh-interrogatives is because of a resumption constraint on A'-positions, which claims that A'-positions must be resumed (Soltan, 2011). Consequently, all the argument wh-interrogatives and only the adjunct wh-interrogative *ween* 'where' in A'-positions are subjected to the resumption constraint. Otherwise, they create ungrammatical sentences in NA.

4.4. The in-situ strategy

The in-situ question strategy forms a wh-question by leaving the wh-word in its canonical position with no movement. Arabic dialects vary in applying in-situ strategy. In EA, all wh-questions can occur in situ, but in Lebanese Arabic, only a subset occurs in situ (Aoun et al., 2010). NA corresponds to EA, where all wh-arguments and adjuncts can appear in-situ.

13. (a) Ali ʃaf min/ weʃ/ ʔay wahid/ kam wahid?   (argument wh-interrogative)
Ali met-3.S.M who/ what/ which one/ how many one?
'Who/ what/ which one/ how many one did Ali see?'
(b) rəht ween/ mita/ leeʃ/ keef?   (adjunct wh-interrogative)
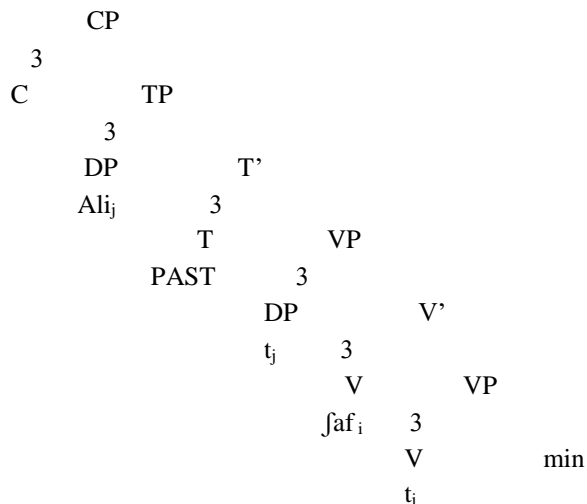went-2.S.M where/ when/ why/ how
'Where/ when/ why/ how did you go?'

In-situ questions have the same syntactic structure as echo questions, but in-situ questions ask information, while echo questions ask for confirmation. The latter is related to prosody, which has a special intonation. Thus, the internal structure of the in-situ questions is that the wh-expression stays in its canonical position as a complement to the predicate, and it is represented by a null operator in the specifier of CP. Therefore, the structure of in-situ questions has no trace as in fronting wh-questions.

```
          CP
       3
  OPᵢ           C'
          3
      C           TP
```
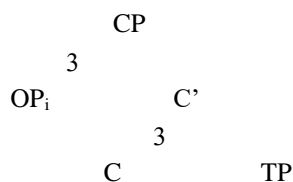
                        Wh-phrase   (adapted from Gad, 2011)

Thus, the syntactic structure of sentence 10 (a) is represented as,

```
      CP
   3
  C       TP
       3
      DP          T'
      Aliⱼ      3
              T         VP
          PAST      3
                  DP          V'
                  tⱼ      3
                      V           VP
                  ʃafᵢ      3
                          V           min
                          tᵢ
```

5. CONCLUSION

The main objective of this paper was to investigate the possible strategies for wh-question formation in NA and to provide the syntactic representations associated with each. Following the analysis of the range of strategies for forming wh-questions in NA, this conclusion sums up the major findings.

I assumed that wh-questions in NA use all four strategies: the gap strategy, the resumptive strategy, the class II resumptive strategy, and the in-situ strategy to form wh-questions. However, not all argumental and adjunct wh-interrogatives can be occupied in the strategies. For the gap and in-situ strategies in NA, all argumental and adjunct wh-interrogatives can be employed. However, the resumptive strategy is restricted to the argument wh-interrogatives *ʔay* NP 'which NP' and *kam* NP 'how many NP', and only the adjunct wh-interrogative *ween* 'where' in NA. However, all the argument wh-interrogatives *min* 'who', *weʃ/ ieʃ* 'what', *ʔay* NP 'which NP' and *kam* NP 'how many NP' in addition to the adjunct wh-interrogative *ween* 'where' are possible in the class II resumptive strategy in NA.

This paper has provided evidence that adjunct wh-phrases can be resumed in NA, unlike most Arabic varieties. Furthermore, I assumed that the main strategies for forming wh-questions in NA are the gap strategy and the class II resumptive strategy. Besides, I claim that wh-in situ can be employed in discourse linked contexts in NA.

For further research, the strategies for forming wh-questions should be examined among more varieties to characterize their differences, in terms of their syntactic properties. Moreover, other issues relating to wh-questions should be analyzed, such as the structure of wh-scope marking, wh-agreement system and pied-piping in NA.

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