Wh-Movement in Najrani Arabic

Faraj Ahmed Al-hamami[1] & Hassan Obeid Alfadly[2]

Abstract

Many studies attempted to account for wh- movement from a purely syntactic point of view. This study intends to do an idiosyncratic investigation of the wh-movement in Najrani Arabic within the current version of generative syntax as presented in Chomsky's 1993 and 1995 Minimalist Program. The study reveals that the wh-phrases have the option either to move to the front position of a sentence or remain in-situ in both transitive and intransitive construction except for the subject wh-argument 'min' only in intransitive construction. The [+WH] feature is the trigger of the movement which is obligatorily motivated by EPP. Finally, an alternative wh-movement account for Najrani is applied which involves overt wh-movement, and this idea's proof comes from island effects as wh-phrases in Najrani Arabic are sensitive for the island constraints (wh-island, and complex NP island).

Keywords: island constraints, Najrani Arabic, Wh-Movement, [+WH] feature

1. Introduction

Najrani Arabic is mainly spoken in a number of areas of South-western of Saudi Arabia, which includes Najran and Sharourah. There are approximately hundred thousand speakers of NA in Sharourah. NA can only be understood by Najrani speakers since this variety has special linguistic forms in syntax, morphology, and semantics, which differ significantly from Standard Arabic. However, all the data have been taken only from people who live in Sharoura, a small area that belongs to Najran. This study intends to do anidiosyncratic investigation of the wh-movement features in Najrani Arabic (NA, henceforth) within the current version of generative syntax as presented in Chomsky's 1993 and 1995 Minimalist Program (MP).

Najrani Arabic forms wh-questions with a variety of strategies. It can form wh-questions by moving the wh-phrase to the specifier of CP, or it can leave the wh-phrase in-situ. In addition, NA also displays a strategy of resumption. This paper has been ordered into six sections: Section 1 is an introduction; Section 2 gives an overview of some analyses offered by Arab linguists on varieties of Arabicwh-movement; Section 3 introduces a brief look at wh-movement in English; Section 4 provides a detailed analysis of wh-movement in Najrani Arabic; section 5 provide island constraints and reveals the sensitivity of wh-phrases for island constraints, and section 6 reviews the results of the study.

1.1 Research Questions

The main argument of this paper concerns whether the movement of the wh-phrases in NA is triggered by the [+WH] feature or by other features. If there is a wh-movement, does the wh-phrase move overtly and covertly?

Therefore, the following questions are addressed to support this argument:
- Are the wh-movement in NA triggered by the [+WH]?
- Are wh- phrases in NA islands sensitive?
- Doeswh-phrase, in NA, moved overtly or covertly?

[1] English Language Department, College of Sciences & Arts/ Najran University, Saudi Arabia, faalhamami@gmail.com
[2] English Language Department, College of Arts / Hadramout University, Yemen, hassanalfadly@yahoo.com

2. Literature Review

Many theoretical linguistists, e.g. Rizzi (1997) and Puskás (2000) as cited in Sultan and Yasin (2016), have proposed the concept that certain discourse functions are triggered by the structural position at the clause's left and right periphery. They state that the left edge is connected to passivisation, topicalisation, contrastive topic, question formation, and narrow focus while the right edge is related to focalisation, both wide and narrow. Sturgeon (2008, p. 7), as cited in Yasin (2016), has the similar view that the lexical verb in the domain of VP as well as the inflectional category T in the domain of TP stand for two structural positions that provide a boundary to elemental domains in any clause.

The Minimalist Program made a revolution over the past Principles and Parameters (P&P) framework. According to Fakih and Al-Dera (2014) and Sultan and Yasin (2016), this (MP) framework stands on achieving the economy of derivation through the elimination of both Deep Structure (DS) and Surface Structure (SS) and reducing the burden of grammatical constraints and conditions imposed on the grammars of language. It is substituted by Spell-Out, referring to the point, wherein the derivation has both Phonetic Form (PF) and Logical Form (LF) Fakih (2005). As a result , any feature movement becomes the final choice that save structures from being damaged. Therefore, the shortest steps are followed for securing the economy conditions on the derivation (Ibid). According to Chomsky (1995), the movement is therefore triggered only when a checking of the features is needed. In the MP (Chomsky 1993, 1995), a language may have either a strong [+wh] feature that triggers wh-movement, or a weak [+wh] feature which yields wh-in-situ.

Wh-movement in most languages takes place to form questions. However, in some languages, question can be formed without moving the wh-question. For example, in some Arabic dialects, wh-phrases either are moved to the initial position to create a question while other varieties have the option to move those wh-words fronted or leave them in-situ Btoosh (2010), Gad (2011) and Ayman (2012). It also seems that wh-movement structures in NA are sensitive for the island effects. Furthermore, besides Arabic dialects, there are some languages in which wh-formation is never formed by wh-movement, but rather remain in-situ. This is shown by Cole and Hermon (1994) in Chinese. There are also languages in which both the in-situ and the movement strategy seem to be options which exist side by side e.g. German (Albaty, 2013). French is said to be a language in which a wh-phrase may remain in-situ (Yeo, 2010). Within the framework of generative grammar, wh-questions have been always considered as an important source of information on multiple phenomena, such as clause structure, driving force of wh-fronting, cyclicity, locality conditions, islands, etc. (see Chomsky 1986; Chomsky &Lasnik 1977; Huang 1982; Lasnik & Saito 1992; Cinque 1990; Rizzi 1990, 1997; Cheng 1991; Watanabe 1992). Therefore, many researchers have concerned the placement of interrogative phrases.

Hence, this section will provide an overview of some previous studies of the syntax of wh-phrases in some varieties of Arabic other than Najrani Arabic, namely Palestinian Arabic (Abu-Jarad 2008), Sudanese Arabic (Sultan and Yasin 2016), and Egyptian Arabic (Lassadi 2003).

2.1 Previous Studies

According to Abu-Jarad (2008), the focus feature motivates wh-movement in Palestinian Arabic. For instance, if the stress was on the question word requesting new information, then it should be fronted as in (i). however, if the emphasis is on the verb itself, then the wh-word should remain in its base position as (ii). These following examples are from Abu-Jarad (2008).

i. Ayshgult la Mona? What said to Mona
What did you say to Mona?
ii. Zurt Mona laysh? Visit Mona why
Why did you visit Mona?

He also argues that Palestinian Arabic can have both overt and covert wh-movement like other Arabic dialects. However, he noticed that not all Palestinian wh-words can be either fronted or remain in its base position. For example, only wh-adjuncts like *why* and *where* can move from their base position to the specifier of CP and hold the same interpretation while wh-arguments like *who, what,* and *which* are originally base generated in the specifier of CP without movement for some reasons. He found that if these wh-phrases *who, what,* and *which* are base generated in situ, then they would not have same meaning when they move to the specifier of CP.

Therefore, he assumes that the different placements of the wh-phrases have two different readings, which prove the idea that wh-arguments are base generated in-situ. For instance, in (iii), it has only one interpretation because of the position of the wh-phrase. However, in (iv) it is ambiguous between two readings because of the movement of question word 'miin'.

iii. zar Ahmed miin?
Visit Ahmed who
'Who did Ahmed visit?'
iv. miinzar Ahmed?
Who visited Ahmed
 'who did Ahmed visit? Or who did visit Ahmed?'

Furthermore, wh-adjuncts are not completely free to be fronted. There are constraints that disallow moving those wh-phrases out of the category that contain them. Those constraints are *wh-island* and *complex N*. These constraints also support the assumption that only wh-adjunct like *why* and *where* can move while the wh-argument cannot. Consider the following examples from Abu-Jarad (2008).

v.   Wh-island
a.   *Laysh Hassan tsawwar Ali ishtaraayyish? Why Hassan thought Ali bought what
b.   Why did Hassan think Ali bought what?
vi.   Complex NP island
a.   *[CP1 Wayyn [TP1 Mohammad darab [NP ill walad [CP2 ill [TP2 hwwa ?ayyishti ?]]]]
            where   Mohammad hit   the boy   that   he   lives ti
            where did Mohammad hit the boy that live?

In their work on Sudanese Arabic, Taha and Yasin (2016) concluded that the wh-movement in Sudanese Arabic is motivated by the [WH] feature. Therefore, in interrogative sentence, the wh-phrase moves from its base position to the beginning of the sentence to be near or local with the [Q] feature in C^0 by an overt movement. In Sudanese Arabic, wh-phrases are optional to be fronted or stay in-situ. If the wh-phrase is moved to the specifier of CP, then it must move overtly to check the feature [+WH] feature as shown in (vii). However, unlike other Arabic dialects, if the wh-expression stays in-situ as in (viii), then these wh-phrases are not real questions and these wh-expressions are [-WH]. They are echo questions, which means that they are not requests for new information. Regarding the restriction of wh-movement, the wh-phrases can be restricted or disallowed to move to the specifier of CP only if the statement is in relative clause because the relative complementizer 'illi' *that* blocks the movement as in (ix). Consider the following examples from Taha and Yasin (2016).

vii.

viii.
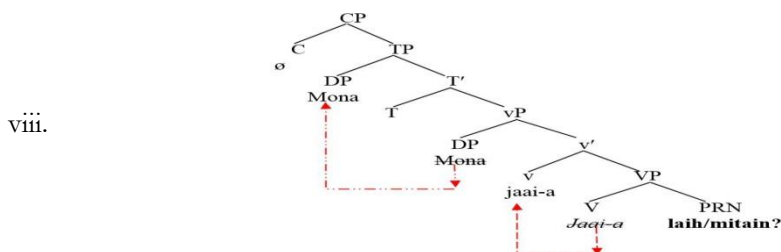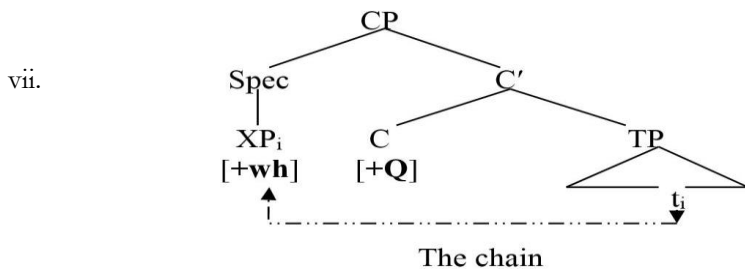
ix.   *min/minumasha-t?
who leave-Fem.Past Who left?min/minuallimasha-t?   who that leave-Fem.Past Who that left?

Lassadi (2003) assumes that wh-movement in Egyptian Arabic is not fully optional. The majority of Arabic dialects could have optional movement of the wh-phrases. However, in Egyptian Arabic, the wh-words usually stay in its base generation without any syntactic movement. In some cases, wh-phrase could move to the initial clause position, but that movement doesn't take place because of the [WH] feature, but because of the focus feature. Focus feature is considered the only trigger for the wh-expression to be fronted. Moreover, moving the question phrases does not always mean that the statement becomes an interrogative sentence. In some contexts, the wh-phrase is moved to initial position to form an exclamation structure.

3 Methodology

The methodology adopted to address the above research questions is qualitative. For collecting the study data, the ethnographic approach is adopted. Najrani informants are selected under judgment sampling. The informants are given a sentence at a time and instructed to judge the sentence as an acceptable/yes or unacceptable/no. All the examples presented in this paper are the sentences that were given to the study informants.

4 Wh-Movement in English

Question formation differs from one language to another. In English, wh-phrases must move from their base position in the complement of the VP to the specifier of CP to form a real question. For examples

a. Ali ate an *apple.*
b. *What$_i$* did Ali eat$_i$?

The English examples above show that the wh-word *what* moved from being the object of the verb to the beginning of the clause. In some languages, however, those wh-phrases remain in their base position without raising to the beginning of the sentence like Mandarin Chinese, and some languages can have the option either to move the wh-expressions or leaving them in their surface base position as in some varieties of Arabic.

5   Wh-Movement in Najrani Arabic

Wh-phrases in NA behave differently. First, like many varieties of Arabic, wh-expressions can move from the complement of the VP to the Spec of CP or remain in-situ. In sentence (b) below, it shows the wh-in-situ while in (c) it is the wh-fronting construction.

a. Ali rah al-madrasah.
Ali went school
'Ali went to school'

b. [CP [TP Ali [VP rah ***wiin****?*]]]
Ali went ***where***
'Where did Ali go to?'
c. **[**CP**Wiin** **[**TP **[** VP rah Ali__?]]]
Where*went Ali
'Where did Ali go to?'

### 5.1 Wh-Movements in Simple Sentences

1. **Transitive**
a. Ali le?bkurah
'Ali played football'
b. [CP ***men***[TP [VPle?bkurah?]]]
Whoplayed football
'Who did play football?'
c. [CP ***lesh***[TP Ali [VP ishtrajawal____]]]
WhyAli bought cellphone
'why did Ali buy a cellphone?'
d. [CP ***wesh***[TP [VP ishtra Ali__]]]
Whatbought Ali
'what did Ali buy?
e. [CP ***wiin***[TP Ali [VP le?bKurah____]]]

*Where*Alile?b football
'Where did Ali play football?'
f. [CP*mta*[TP Ali [VP le?bkurah ____]]]
when Ali play football
'When did Ali play football?'
g. [CP [TP Ali [VP ishtrajawal*leish*?]]]
Ali bought cellphone *why*?
'Why did Ali buy a cellphone?'
h. [CP [TP Ali [VP ishtra*aish*?]]]
Ali bought *what*
'What did Ali buy?'
i. [CP [TP Ali [VP Le?eb al-kurah*wiin*?]]]
  Ali Play football *where*?
'Where did Ali play football?'
j. [CP [TP [Ali [VP ishtraaljowal*mta*?]]]
Ali bought the cellphone *when*
'when did Ali buy the cellphone?'

In a transitive construction, the examples above show that NA has the options of moving the wh-phrase overtly from [Spec, vP] to [Spec, TP] to satisfy EPP, and then to [Spec, CP] to form questions as in (a, b, c, d, e, f), or leaving the wh-expressions in-situ as in (g, h, i, j). The motivation of movement of wh-phrases into [Spec,CP] is attributed to the need to satisfy the EPP (Yeo, 2010). When the wh-expression moved overtly to the initial position, it leaves a trace behind. Therefore, the trace must agree with the moved wh-phrase that moved to the beginning of the sentence, as shown in (k):

(k)

The chain
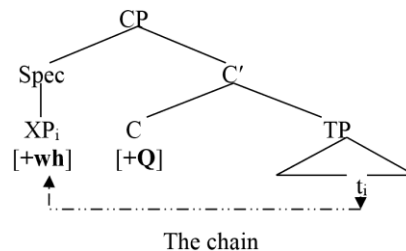
What triggers the movement of the wh-word in (k) is the [+WH] feature that is in the position of C. Therefore, the wh-phrase moves to the specifier of CP to be near or local with the [+WH] feature as proposed by Carnie (2013). On the other hand, examples (g, h, i, j) do not exhibit any syntactic movement of the wh-phrases, and seems to violate Full Interpretation, i.e. Features must be checked in a local configuration. However, we have the term covert movement, which means that the movement operations have syntactic and semantic values, but no visible phonological form. Chomsky (1993) claims that Full Interpretation constraint holds of sentences only at Logical Form (LF). Therefore, those wh-phrases that are base generated in their surface position are actually moved to the beginning of the sentences, covertly, between SPELLOUT and LF as shown below:
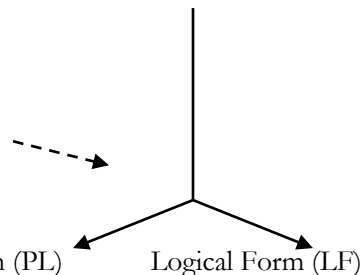
Y-Model (Chomsky 1995)

D-structure

SPELLOUT

Phonological Form (PL)   Logical Form (LF)

It can, thus, be concluded that wh-expressions, in transitive construction, have both overt and covert movement. Nevertheless, the following sentences, which contain intransitive verbs, behave differently:

2. **Intransitive**

k. Salem wesel.
'Salem arrived'
l. **mta** Salem wesel?Or   Salem wesel**mta**?
When Salem arrived. Salem arrived **when**
'When did Salem arrive?''when did Salem arrive?'
m.   **wiin** Salem wesel?Or   Salem wesel**wiin**?
where Salem arrive. Salen arrived **where**
Where is Salem right now?'Where is Salem right now?'
n.**laish** Salem rah?   Or   Salem rah **laish**?
WhySalem left Salem left **why**
'why did Salem leave?''why did Salem leave?'
o.* **men**wesel?
who arrived
'who did arrive?
p.**men** alliwesel?
who that arrived
'who did arrive?'

From the above intransitive examples, the movement of the Wh-word toward the beginning of the sentenceis freely optional except for argument subject wh-phrase "men" 'who'. Thus, the absence of the complementizer 'alli' *that* causes the ungrammaticality in (o). In his work on Subject Wh-movement in Najrani Arabic, Fakih (2014) argues that the only way to save the grammaticality of (o) is that illi 'that' must be immediately inserted after the subject wh-phrase as in (p). Fakih (2014) argues that both transitive and intransitive constructions must have the complementizer alli 'that' after the subject wh-phrase to be grammatical. However,it is found that subject wh-phrase, in transitive constructions, can be formed grammatically without inserting the complementizer *alli* as in (a). The differences between Fakih's data and this data could be attributed to different tribal groups in two different places that belong to the same province, Najran. Therefore, wh-phrases in simple sentences undergo syntactic movement from the [Spec, vP] to [Spec, TP] to satisfy EPP, and then to [Spec, CP] to check the [+WH] feature overtly and covertly except for the argument subject wh-phrase 'min'. The next section will provide further evidence that argument subject wh-phrase 'min' have different syntactic construction than other wh-phrases.

5.2 Wh-Movements in Embedded Clause

According to Abu-Jarad (2008), Palestinian Arabic allows only adjunct wh-phrases like *wayn* 'where' and *layyish* 'why', in embedded clause, to be positioned in any intermediate complementizer that occur between their base position and the controlling complementizer; he claims that only wh-adjuncts that undergo syntactic movement as shown in (i):

i. [CP1 …[CP2….[CP3 …wh]]]
 [CP1…[CP2..wh…]]
 [CP1…wh[CP2..[CP3..]]]
[CP1wh…[CP2…[CP3..]]]
However, the wh-arguments like *who, what,* and *which,* cannot move freely as that for wh-adjuncts because Palestinianwh-movement is determined by the kind of the wh-word itself. Therefore, (ii) shows that wh-arguments can only either stay in-situ, or can be base generated in the matrix clause as in (ii). Therefore, Abu-Jarad argues that wh-arguments do not undergo any syntactic movement.
ii. [CP1 …[CP2….[CP3 …wh]]]
* [CP1…[CP2..wh…]]
* [CP1…wh[CP2..[CP3..]]]
wh [CP1…[CP2…[CP3..]]]
    In NA, on the other hand, both wh-adjuncts and wh-arguments have the same syntactic movement as that for the Palestinian wh-adjuncts. Consider the following examples:
a. Ali [VP yefaker [CP [TP Salem be-yesafer**wiin**]]]

 Ali   wonders Salem   will- travel **where**
'Ali wonder where Salem will travel to?'
b. Ali [VP yefaker [CP **wiin** [TP Salem safer___]]]
Ali wonders **where** Salem travelled to
  'Ali wonders where Salem travelled to?'
c. Ana [VP saalt [CP [TP hyahabbet**men**]]]
I   asked   she kissed **who**
"I asked who she kissed."
d. Ana [VP saalt [CP **men** [TP hyahabbet ___]]]
I   asked   **who**   she kissed
'I asked who she kissed."
e. Ahmed [VP yearef [CP [TP Ali akal**aish**]]]
Ahmed   knows   Ali ate **what**
'Ahmed knows what Ali ate'
f. Ahmed [VP yearef [CP **aish** [TP Ali akal___]]]
Ahmed   knows   **what** Ali   ate
'Ahmed knows what Ali ate'

        The above sentences reveal that wh-phrases in NAhas the option to remain in-situ as in (a, c, e), or move to the Specifier of the embedded CPs as in (b, d, f).Consequently, wh-expressions in NA can undergo syntactic movement.

6. Islands

        Wh-phrase can occur at the beginning of a sentence even if it is far away from its canonical position. However, there are some cases where those wh-phrases are not allowed to occur at the beginning of a sentence because of the island constraints. Those constraints block the wh-movement to occur (Carnie2013). In this section, two islands will be included, namely Wh-Island and Complex NP Island. First, a wh-island is formed by an embedded sentence which is initiated by a wh-word. Second, Complex NP Island refers to moving wh-expressions out of a noun phrase. The following examples show that wh-phrases in NA are sensitive for the island constraints as in (5.1) and (5.2):

6.1 Wh-Island

a. [CP **Wesh-min siyarah$_i$** [TP Ali [VP nashad [CP laish$_j$ [TP Salem VP ishtaraha$_i$ $_j$?]]]]]
which   car   Ali   ask   why   Salem   bought
'which car did Ali ask why Salem bought?'
b. [CP **Wesh-min siyarah$_i$** [TP Ali [VP nashad [CP atha _$_i$_ [TP mawjoodahhena?]]]]]
which car   Ali   ask   if   found   here
'which car did Ali ask if it was found here?'
c. [CP **Wesh-min siyarah$_i$** [TP Ali [VP mayedri [CP kaif$_j$ [TP Salem VP ishtaraha$_i$ $_j$?]]]]]
which car   Ali   not know   how   salemishtraha
'which car did Ali not know how Salem had bought'
 The examples above show that when the embedded clause contains a wh-phrase (why, how), wh-movement is
    blocked.
6.2 Complex NP Island
a. [CP [TP Ali [VP shaf al-walad[CP illi[TP [VP sag **aish**?]]]]]]]]
Ali saw the boy who drove **what**
 'Ali saw the boy who drove what?'
b. *[CP **aish**[TP Ali [VP shaf al-walad[CP illi [TP [VP sag___]]]]]]
what Ali saw the boy who drove
 'what did Ali saw the boy who drove?'

        Again, the examples above reveal that the ungrammaticality stems from the violation of the island constraints on wh-movement. Therefore, these constraints support the argument that wh-expressions in NA undergo syntactic movement.

7. Conclusion

This study has discussed the movement of the wh-phrases in NA. First, it reveals that the wh-phrases have the option either to move to the front position of a sentence or remain in-situ in both transitive and intransitive construction except for the subject wh-argument '*min*' only in intransitive construction. In embedded clauses, it also shows the optionality of the wh-phrases. Finally, it is found that wh-phrases in NA are sensitive for the island constraints (wh-island, and complex NP island). regarding the motivation of the wh-movement, it is found that the [+WH] feature is the only trigger for the movement. Therefore, it's shown that when the wh-phrases is raised to the beginning of a sentence, the movement occurs overtly 'before SPELLOUT'. However, if the wh-operator remains in-situ, it's still a real question and the movement happen covertly 'after SPELLOUT'. Furthermore, the evidence of the wh-movement in NA is seen from the sensitivity of the wh-phrase for island constraints like 'wh-island, and complex NP island'.

Reference

Abu-Jarad, H. (2008). Wh-movement in Palestinian Arabic, Al-Azhar University Journal Gaza, 10(1), 49-62.
Albaty, Yasser A. (2013). Wh-in-situ in Najdi Arabic, Working Papers of the Linguistics Circle of the University of Victoria 23, 1–13.
Ayman, Yasin. (2012). Syntax-Prosody Interface: Evidence from WH-Movement in Jordanian Arabic and Egyptian Arabic. Purdue University, West Lafayette, Indiana. (Doctoral dissertation.)
Btoosh, Mousa A. (2010). Wh-movement in Standard Arabic: An Optimality-Theoretic Account. Poznań Studies in Contemporary Linguistics 46(1), 2010, pp. 1–26.
Bayer, Josef . (2004). Wh-in-situ. [Online] Availablehttp://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.131.7048&rep=rep1&type=pdf (Feb. 21, 2018)
Cheng, Lisa Lai Shen. (1991). On the typology of wh-questions.Massachusetts Institute of Technology. (Doctoral Dissertation.)
Chomsky, Noam. (1986). Barriers. Cambridge, MA: MIT Press.
Chomsky, N. (1995). The Minimalist Program. Cambridge: MIT Press.
Chomsky, N. (1993). A minimalist program for linguistic theory. In Hale & Keyser (eds.). The view from Building 20. Cambridge, Mass: MIT Press. 1-52.
Carnie, Andrew. (2013). Syntax: A generative introduction. 3rd edition. Oxford: Wiley-Blackwell.
Cinque, G. (2004). Restructuring And Functional Structure. Structures And Beyond. The
Cartography Of Syntactic Structures 3, 132-191.
Carnie, A. (2007). Syntax: A Generative Introduction (2nd Edition). Oxford: BlackwellPublishing Ltd.
Fakih, Abdul-Hafeed Ali. (2005). Licensing: Movement and Feature Checking in Standard Arabic and Minimalism. The University Researcher Journal, Issue No. 9, 1-20, June.
Fakih, A. (2014). Subject Wh-movement in Najrani Arabic and minimalism. International Journal of Linguistics, 6(5), 90-108. https://doi.org/10.5296/ijl.v6i5.6059
Fakih, A and Al-Dera, A. (2014). Question Affix Analysis in Standard Arabic: A Minimalist Perspective. International Journal of English Linguistics; Vol. 4, No. 6;
Gad, Rehab Farouk Gad Alsayed. (2011). A Syntactic Study ofwh-movement in Egyptian Arabic within the Minimalist Program. University of Leeds. (Doctoral Dissertation.)
Haegeman, L.M.V. (1994). Introduction To Government And Binding Theory. Blackwell, Oxford.
Hornstein, N., Nunes, J. &Grohmann, K.K. (2005). Understanding Minimalism. Cambridge University Press.
Huang, Cheng-Teh James. (1982). Logical relations in Chinese and the theoryof grammar. Massachusetts Institute of Technology. (Doctoral Dissertation.)
Lassadi. B. (2003). Optional wh-movement in French and Egyptian Arabic, Cahiers linguistiquesd'Ottawa, Vol. 31: 67-93 ISSN 0315-3167.
Lasnik, Howard, and Mamoru Saito. (1992). Move α: Conditions on its applicationand output. Cambridge, MA: MIT Press.
Radford, A. (2004). Minimalist Syntax: Exploring The Structure Of English. Cambridge
Univ Press.
Richards Iii, N.W. (1997). What Moves Where When In Which Language?Mit, Cambridge,Mass. (Doctoral Dissertation).
Rizzi, L. (1990). Argument/Adjunct (A) Symmetries. Proceedings Of Nels 22, Glsa,University Of Massachusetts, Amherst.365-381.
Rizzi, L. (1997). The fine structure of the left periphery. In Haegeman, L. (Ed), Elements of Grammar: A handbook of Generative Syntax. Kluwer: Dorbrech
Puskás, G. (2000). Word Order in Hungarian: The Syntax of ?-positions (Vol. 33). John Benjamins Publishing.
Sturgeon, A. (2008). The Left Periphery The interaction of syntax, pragmatics and prosody in Czech. John Benjamins Publishing Company Amsterdam / Philadelphia.
Taha, M.Sultan, F. M. and Yasin, S. M. (2016). Wh-Movement in Sudanese Arabic: A Minimalist Approach, PertanikaJ. Soc. Sci. & Hum. 24 (4): 1611 – 1626.
Watanabe, Akira. (1992). Subjacency and S-structure movement of wh-insitu. Journal of East Asian Linguistics 1:255–291.
Yeo, Weichiang Norman. (2010). Unifying Optional Wh-movement. The University of York. (Doctoral Dissertation.)