

Wh-Movement in Sudanese Arabic: A Minimalist Approach

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ABSTRACT

The difference in the morphological and semantic properties of cross-linguistic wh-expressions is due to the difference in wh-question formation strategies. It is the contention of this paper that wh-expressions are universally consistent, in the sense that their semantic force is undetermined in the lexicon. However, once they are chosen for the computation, the wh-expression becomes merged syntactically with another element and this gives rise to relative or interrogative semantic interpretation. The syntax of wh-expression generally falls in two categories: argument wh-expression and non-argument wh-expression. In conclusion, this paper maintains that the wh-movement's driving force is underspecified by the [+Q] feature of the head C operator wherein the interpretation that wh-expression gets is at the level of the interface.

Keywords: Wh-expression, wh-movement, Sudanese Arabic, minimalist approach

INTRODUCTION

Also known as Khartoum Arabic, Sudanese Arabic¹ is included in the classical Arabic dialect varieties and is most widely-spoken in Sudan's capital city, Khartoum. While Standard Arabic is Sudan's official language, which it shares with numerous other nations, Sudanese Arabic can only be understood by Sudanese speakers since this dialect has unique linguistic forms. Different grammatical features have sprung

¹ The term Sudanese Arabic is used here to refer to the spoken Arabic, as the writing language for the state is still the standard Arabic.

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from these distinctive linguistic forms of Sudanese Arabic: syntax, morphology, and semantics, which differ significantly from Standard Arabic or any other variety of Arabic dialect.

This study thus intends to do an investigation of such idiosyncratic features of Sudanese Arabic as it pertains to *wh*-question formation. In terms of theoretical perspectives, this study employs the current version of generative syntax as presented in Chomsky's 1993 and 1995 Minimalist Program (MP). This study is structured into four sections. Section 1 provides an introduction to the study. Section 2 outlines the *wh*-movement in Minimalism's theoretical background. Section 3 gives a review of related literature on *wh*-movement in various spoken Arabic languages. Section 4 analyses the movement of *wh*-expressions in Sudanese Arabic.

Rizzi (1997) and Puskás (2000), among numerous other proponent scholars and researchers working in theoretical linguistics, have put forward the concept that the structural position at the clause's left and right periphery exhibit particular discourse functions. For example, they contend that the left edge relates to passivisation, topicalisation, contrastive topic, question formation, and narrow focus while the right edge is associated with focalisation, both wide and narrow. Related to this is the view of Sturgeon (2008, p. 7) that the lexical verb in the domain of *vP* as well as the inflectional category *T* in the domain of *TP* represent two structural positions that provide a demarcation to elemental domains in any clause.

THEORETICAL BACKGROUND

The Minimalist Program changes the theories from the past Principles and Parameters (P&P) framework. In this framework, the main goal is stated thus: reaching the economy of derivation through the elimination of both Deep Structure (DS) and Surface Structure (SS). It is subsequently replaced by Spell-Out, referring to the point, wherein the derivation has both Phonetic Form (PF) and Logical Form (LF). As a consequence, any constituent movement is revealed to be a Last Resort operation that secures structures from crashing. Chomsky (1995) puts forth as a proposal the Principle of Procrastinate that requires the movement to occur at LF and not before. To guarantee the economy conditions on the derivation, the movement needs to go through the shortest steps. As per Chomsky's 1995 outline, the movement is therefore motivated only when a checking of the features is needed. This means that the element's movement is licensed if the ensuing structure could lead to the facilitation of features' checking. This concept is informally expressed by Hornstein (2001, p. 18):

- (1) Move the element A to the target position K if the feature of one of these elements is checked by the operation.

As a result, this turns the movement analysis as a Copy and Merge operations complex. Here, traces which mark the position from where the movement happened get replaced by the lexical copies.

It can thus, be assumed that displacement is among the defining characteristics of any human language, in which a few elements of sentence structure can surface in positions that are distinct from those that get interpreted; e.g. *wh*-expression (Aoun et al., 2010). Consequently, this is the central goal of any syntactic theory: to satisfactorily clarify the dependencies between the elements which get preposed to the periphery and the position to which they get relegated to within the same sentence. Depending on the parametric variation cross-linguistically, such a position is constantly occupied either by trace or by pronominal resumptive element.

On *wh*-movement, Chomsky (1995) also posits that generally, *wh*-movement is set off by the functional head *C*'s strong feature, wherein it is presumed that the head *C* bears an operator feature that is, by nature, morphological and matches operators as *wh*. Thus, *wh* as an operator essentially moves for the purposes of feature checking in a proper feature checking domain, hence – [Spec, CP]. As a result, if the *C* operator feature is strong, the *wh*-expression goes through overt movement, while if the operator feature is weak, the *wh*-expression goes through covert movement. In the minimalist inquiry, Chomsky (2000) however, argues that in *wh*-movement, the *wh*-expressions exhibit the uninterpretable feature of [-*wh*] and an interpretable feature of [+*Q*] that matches the uninterpretable feature [-*Q*] of the head *C*. And because *C* is probe looking for the goal (*wh*-expressions), the uninterpretable features of both are

verified through spec-head relationship and ultimately deleted.

REVIEW OF LITERATURE

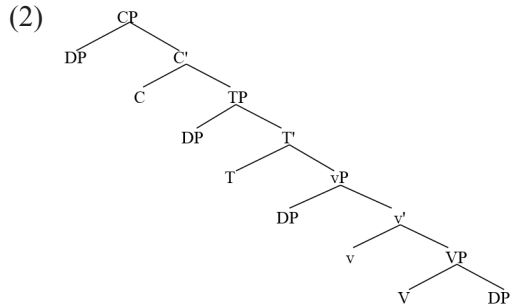
Within Arabic literature, Fasih (2007a, 2007b and 2011), Alotaiba (2013) and Alshorafat (2013) have expounded on the syntax of Standard Arabic *wh*-movement as a part of the constituents which occupy the left periphery of the clause structure in Standard Arabic – hence [Spec, CP]. For instance, Fasih (2011) argued that the *wh*-phrase in Standard Arabic cannot be positioned in-situ; it undergoes overt movement to [Spec, CP]. Alotaiba (2013) on the other hand, claimed that *wh*-movement is applied only to VSO word order paradigm and not to any other paradigms.

Several researchers have alternatively provided analyses on the phenomenon of *wh*-movement in different Arabic varieties. Among these studies are the following: Abu Jarad (2008) - Palestine Arabic; Bardeas (2005) - Makkan Arabic; Almamani and Alsaiaf (2010) - Jordanian Arabic; Leung and Aleisaei (2011) - Emirate Arabic; Altouny (2011) - Cairo Arabic; Cheng (2000), Lassadi (2003), Soltan (2010) and Yassin (2013) - Egyptian Arabic. In the above studies, the researchers emphasised the analysis of *wh*-phrases, giving explanations whether these languages allow *wh*-movement or remain *wh*-phrases in-situ. They also delved on the material syntactic processes involved in coming up with *wh*-questions. For example, in Palestinian Arabic, only non-argument *wh*-phrase undergoes movement, whereas argument

wh-phrase must be in-situ position. In contrast, Jordanian Arabic applies both wh-movement and in-situ strategies, whereby wh-movement is triggered by focus feature, thus wh-phrase moves to [Spec, FocP] to license this feature. In Najrani Arabic, subject-wh undergoes movement to [Spec, CP], however, illi “that” is analysed as the head of FocP, and the wh-phrase in this construction occupies [Spec, FocP]. On the other hand, the objective of this study is to offer the wh-movement’s syntactic explanation, which included the processes involved as well as the structural position wherein they get preposed.

In examining wh-movement in Sudanese Arabic, it is imperative to review the important elements of Chomsky’s phase-based model (Chomsky, 1999, 2001, 2005 and 2006). In this model, it is assumed that a clause involves two fundamental phases: CP and vP. CP means the force of the clause, be it interrogative, declarative, exclamative, or imperative. On the other hand, v*P dominates the inner shell (hence VP) as well as the outer shell (hence vP). In support of his assertion considering CP and vP as phases, Chomsky stated that CP represents the complete complex which includes the force marker while vP stands for the complete thematic structure which includes the external argument. He also argued that the heads C and v constitute phases where there is a satisfactory agreement between probes and goals (Chomsky, 1998, 1999 and 2001). He further maintained that C, T and v are probes, in which the syntactic

operation – Merge is applied before probing can occur, as exemplified in the following:



We have so far accepted the standard assumption that CP makes up a head C, which, in languages such as English, can always be filled by a complementiser or a preposed auxiliary with TP as the complement. Such an analysis, however, raises a question on the position occupied by the wh-constituents, as seen in the following example (3) with wh-expressions preceding auxiliary.

- (3) **How many books** do you read?
When are they coming?
What do they do?

Each sentence in (3) is derived involving an inverted auxiliary that occupies the head position of CP and the wh-expression preceding it. This wh-expression serves as the verb complement in its canonical structure as in the paraphrased sentences in (4).

- (4) You read **how many books**?
 They are coming **when**?
 They do **what**?

In such examples (4), structures are termed as **wh-in-situ**. Wh-expressions remain in situ in their canonical position since they do not get preposed; they also serve as direct objects to their predicates. This style of questioning, when wh-in-situ is utilised, are therefore **echo questions** (Radford, 2009a). As a result, echo questions in (4) puts forth the proposal that wh-expressions are originally obtained as complements of their predicates; they are then shifted to the front of the whole clause where they occupy the specifiers of the head C.

WH-MOVEMENT IN SUDANESE ARABIC

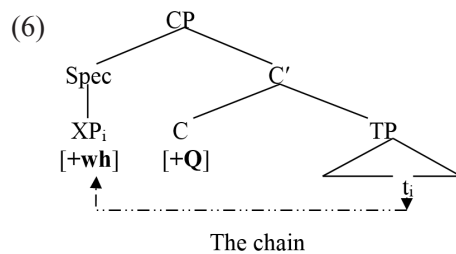
Syntactic analysis of wh-movement has gotten a widespread focus across various languages worldwide. Consistently, the results demonstrate the universal principles as well as the parametric variation cross linguistically when it comes to syntax of wh-questions. Among several scholars, however, the generic conclusion points to wh-question being split into argument wh-expression and adjunct wh-expression. Related to this, Sudanese Arabic allows various kinds of wh-question, i.e. wh-in-situ, simple wh-movement, relative clauses, pied piping wh-questions, and embedded wh-questions. Before one proceeds to analyse the syntax of Sudanese Arabic wh-questions, it is important to make an introduction of the wh-interrogatives in Sudanese Arabic, as seen in the list below:

(5) Wh-interrogatives in Sudanese Arabic

Wh-interrogative	Gloss
shunu	<i>what</i>
min / minu	<i>who</i>
kam	<i>how many</i> <i>/ how much</i>
kaif	<i>how</i>
laih	<i>why</i>
bitain / mitain	<i>when</i>
wain	<i>where</i>
yatu / yata	<i>which</i>

Simple Wh-Movement

As for wh-movement in contemporary version of generative syntax, it is accounted for the derivation of A'-movement to [Spec, CP]. The significant property of such a construction is the chain that links wh-expression and its trace (Culicover & Jackendoff, 2005, p.311). In such a structure, the trace must be made to agree with the moved wh-element, which, in turn, should appear in the clause initial position, as exemplified in the following:



The structure's two basic aspects in (6) consist of the existence of C with [+Q] and [Spec, CP] with [+wh] feature. Consequently, this position in the structure is marked by C with the movement triggered by licensing this [+Q] feature. This, in turn, necessitates

agreement between C and something in the position of specifier, (Chomsky, 1995; Rizzi, 1996). Thus, in declarative clauses, the parallelism between wh-movement and the movement to the left periphery proposes the following: in general, the movement to the left periphery is urged by licensing and setting the agreement relationship between the head C and the preposed XP (Rizzi, 1997). It is therefore obvious to connect these agreement relations to the information structure (for example, non-subject movement), wherein the preposed element is interpreted as topicalised element, establishing the agreement for [+topic] features.

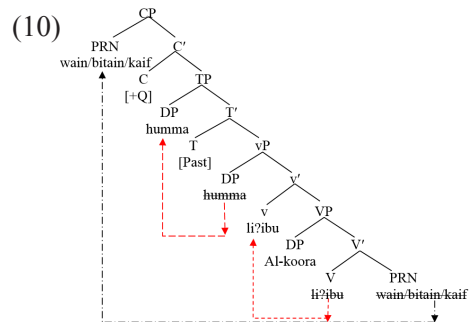
The syntax of the simple wh-movement in Sudanese Arabic will be explored in the following section. This aims to illustrate how wh-questions can be derived. Consider the Sudanese Arabic examples below:

- (7) **Wain** humma li?ib-u al-koora?
 where they play-Pl.Past the-football?
 Where did they play football?
- (8) **Bitain** humma li?ib-u al-koora?
 when they play-Pl.Past the-football?
 When did they play football?
- (9) **Kaif** humma li?ib-u al-koora?
 wow they play-Pl.Past the football
 How did they play football?

Taking into account the MP movement justification, these derivations (7, 8, and 9) involves three basic devices. First, the existence of wh-expression in the clause initial position. Second, the critical step of copying **wain/bitain/kaif** (where/when/

how respectively) and adjoining the copy to the clause that is initially in the [Spec, CP] position. Lastly, while adjunction is limited by the feature-checking requirement on the functional head C, it must be matched with the corresponding features of the adjoined constituent in the [Spec, CP].

Consequently, from its canonical position inside vP, the wh-expression shifts overtly to the front of the clause and therefore, the leftmost periphery occupying [Spec, CP]. Theoretically, this movement is simply considered as a specific kind of Merge operation, which encompasses taking out an element from the lexical array, then merging it with other elements as an external merge. On the other hand, an internal merge involves a movement of an element from the current structure to a new position within the same structure. Considering this, a wh-expression that is moved leaves a copy of an extraction (trace) in the position from which it was moved. Therefore, the moved wh-expression is co-indexed or bound to its trace. In theory, therefore, taken together, a moved element and its trace constitute a movement chain, as seen in the following example:



Since making structures as minimal as possible is part of the MP's requirement, the derivation of wh-movement therefore, does not map phrase structures into phrase structures. Rather, it maps the representations as these form their conceptual structure into phrase structures. As a result, no syntactic operations (i.e. Move, Copy or Merge) can tell the difference between the representation of wh-expression in the clause initial position and non wh-expression in the post-verbal position (Culicover & Jackendoff, 2005, p. 313). To achieve both of these, the interface rules map various components into a specific position this is based on their syntactic properties and semantic roles. Furthermore, the process of binding wh-expression to its trace is not obtained by Copy, Merge and Deletion, but by chain creation, as the head of the chain is linked and positioned in the clause initial position.

MP's theoretical mechanisms state that wh-movement is a feature-driven operation, which includes checking of the morphological features. Wh-movement in (10) is thus set off by feature checking in the proper checking domain – hence the head C. Wh-expression then carries [wh] feature, while the head C carries [Q] feature that attracts the [wh] feature on wh-expression. Wh-expression, therefore, moves to its position as a specifier for feature checking. Lastly, Chomsky (1995, 1999) notes that through the syntactic operation Merge or Move, the [+wh] feature on wh-expression then goes into the checking domain with [+Q] feature of C. Thus, the scopal properties either in [Spec, CP] or in the position they

adjoined to are satisfied by wh-expressions (Gad, 2011).

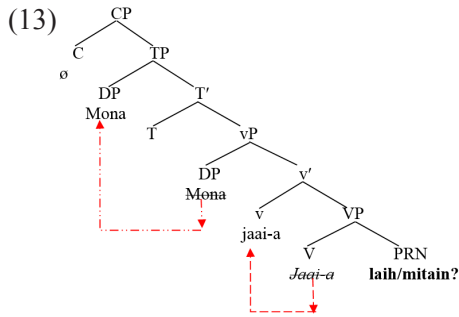
In-Situ Wh-Questions

In the previous section, the key assumption in deriving wh-questions concerns the extraction or chain constrains between the moved element and its trace. In deriving echo questions, however, there exists no extraction constrains. Since wh-word remains in its canonical position, i.e., as a complement of the predicate, in situ wh-questions do not involve trace. Such constructions are connected to prosody, which generates the characteristic intonation, as can be gleaned in the Sudanese Arabic examples below:

- (11) Mona jaai-a **laih?**
 Mona come-Fem.Future why
 Why is Mona coming? / Mona is
 coming why?
- (12) Mona jaai-a **mitain?**
 Mona come-Fem.Future when
 When is Mona coming? / Mona is
 coming when?

In such structures (11 and 12), the wh-expressions do not get preposed; instead, they remain in situ in their canonical position, which is related to their grammatical function as non-arguments – hence A'-constituents. This provides extra information pertaining to the event expressed by the predicate. They are, therefore, positioned after their verb – **jaai** (coming). In situ questions are thus normally used as echo questions, i.e. echoing and questioning something that

has previously been said by someone. The structure of in situ similar to (11 and 12) can be seen in the following:



The structure in (13) thus indicates that wh-expressions originated as complements of their verbs; eventually, they got moved to [Spec, CP] deriving non-echo-question similar to those in the earlier section.

Wh-Movement in Relative Clauses

In Sudanese Arabic, relative clauses have a relative complementiser *alli* “i.e. that/which” and a wh-pronoun before it. This relative complementiser indicates someone or something in the sentence’s conceptual structure at its D-structure level. This is demonstrated in the Sudanese Arabic examples below:

- (14) a. Fatima masha-t
 Fatima leave-Fem.Past
 Fatima left
 b. ***min/minu** masha-t?
 who leave-Fem.Past
 Who left?
 c. **min/minu** *alli* masha-t?
 who that leave-Fem.Past
 Who that left?
- (15) a. Mohamed katab gissa
 Mohamed write.Past story
 Mohamed wrote a story

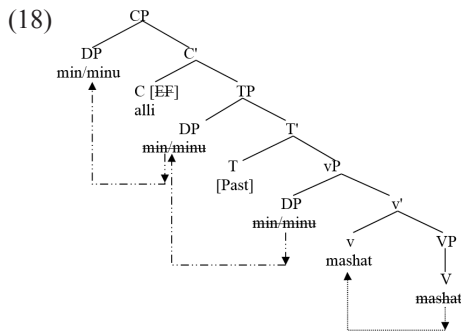
- b. ***min/minuk** atab gissa?
 Who write.Past story
 Who wrote a story?
 c. **min/minu** *alli* katab gissa?
 who that write.Past story
 Who wrote a story?

- (16) a. Ahmed eshtara ?arabiya
 Ahmed buy.Past car
 Ahmed bought a car
 b. ***shunu** Ahmed eshtaraa-ha?
 what Ahmed buy.Past-Fem
 What did Ahmed buy?
 c. **shunu** *alli* Ahmed eshtaraa-ha?
 What which Ahmed buy.Past-Fem
 What did Ahmed buy?

A careful consideration of the examples in (14a, 15a, and 16a) shows that there is a movement of the DPs from their canonical position within vP towards [Spec, TP]. In obtaining non-echo-wh-questions, the usual practice is to put the wh-expression in front towards the clause-initial position or to the clause’s left periphery. However, as can be seen in (14b, 15b and 16b), ungrammatical structures, which are considered unexpected questions in Sudanese Arabic, are derived. The examples in (14c, 15c and 16c) illustrate the solution to this problem through the grammar of Sudanese Arabic inserting the relative complementiser *alli* “who/that/which” that instantly follows the argument wh-expression. Consequently, the Sudanese Arabic word *alli* “who/that/which” can be considered as the relative complementiser that heads C of CP. The assumption of Chomsky is that interrogative constructions have a readily apparent wh-expression, wherein such derived constructions, such as the wh-features, are adjoined covertly

to Q in CP. Thus, the wh-expressions shift to [Spec, CP] to license Q-features of the complementiser C, as demonstrated in the example below:

- (17) *min/minu* *alli* *masha-t*?
 who that leave-Fem.Past
 Who that left



So as to rationalise wh-movement, Chomsky posited that **Edge Feature (EF)** causes the wh-constituent to move into [Spec, CP]. Moreover, he asserted that in the same way the T in finite clause has an Extended Projection Principle (EPP) feature that requires it to have a subject in its Spec position, C in interrogative clause also has an EF feature that necessitates having a specifier on the edge of CP.

The structure in (18) is derived this way: the verb *mashat* “left”, which is merged with its external argument *min/minu* “who” combined with the lexical verb, shifts from V to v, forming the complex vP. Next, the external argument also has a movement from its canonical domain [Spec, vP] to [Spec, TP] in order to check EPP feature on T, forming TP. Thereafter, TP merges with the complementiser *alli* “that”, forming C'. It is requisite for the EF feature on C to have a specifier; therefore, EF of C

causes wh-expression into moving towards the [Spec, CP] position, so that the clause gets its interrogative interpretation. This is according to Interrogative Condition, outlined by Radford (2009b).

(19) **Interrogative Condition**

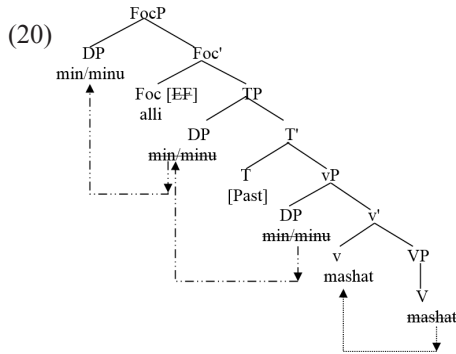
A clause is considered as a non-echoic question if it features an interrogative word in its specifier position

(Radford, 2009b, p.194).

Another proposal is also stated in the structure in (18): the wh-expression cannot go through an overt movement to [Spec, CP] across the complementiser *alli* “who/that/which”. This is due to the fact that in such a construction, *alli* functions as a wh-island constraint, blocking any movement made openly by wh-expression to [Spec, CP] position. But, this constraint is utilised for certain types of Sudanese Arabic wh-constituents (argument wh-expression), specifically *min/minu* “who/which” and *shunu* “what”. Such obligatory *alli* insertion in Sudanese Arabic with wh-expression placed before it in the syntax of wh is a characteristic that can be ascribed as the relative complementiser that heads C of CP. Moreover, its EF feature necessitates it to require a specifier in its [Spec] position.

Because *alli* has robust focus features [+Focus, +Nominal], these need to be checked somewhere during derivation. Since *alli* is a probe in search of a goal, wh-expression is the closest goal owing to the fact of being the constituent that occupies the edge of TP. Therefore, wh-expression moves to [Spec, FocP] in order to check

these features; else, the derivation will crash, as illustrated below:



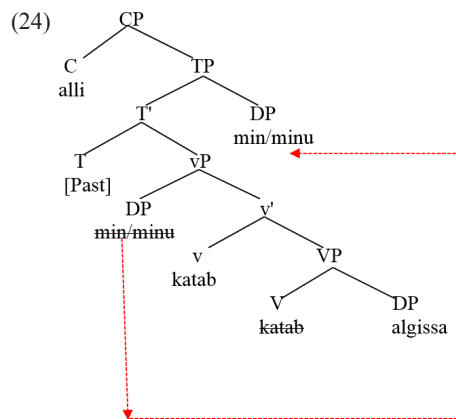
In such constructions, *alli* “who/that/which” can therefore also be considered as a relative pronoun heading the focus projection in the deep structure. In relation to that, Rizzi (2001), Gad (2011) and Fakh (2014) proposed that wh-expression overtly moves to [Spec, FocP] in order to license strong focus feature on the head Foc.

As both analyses of *alli*-construction in Sudanese Arabic are examined, it can be asserted that in such constructions, *alli* is a relative complementiser instead of a relative pronoun. This argument has its basis on the wh-in-situ strategy for the similar wh-phrases used with *alli*, with *alli* remaining in the clause-initial. Consider the following:

- (21) a. *katab al-gissa min/minu *alli*?
write.Past the-story who that
Who wrote the story?
- b. *alli* katab al-gissa min/minu?
That write.Past the-story who
Who wrote the story?
- (22) a. *Ahmed eshtaraa-ha shunu *alli*?
Ahmed buy.Past-Fem what that
What did Ahmed buy?
- b. *alli* Ahmed eshtaraa-ha shunu?
that Ahmed buy.Past-Fem what
What did Ahmed buy?

In careful scrutiny of Sudanese Arabic *alli*-constructions, *alli* is considered as a relative complementiser with the clause containing it as relative clauses. This is so because, in such constructions, *alli* is in reference to someone/something in the preceding wh-expression, as demonstrated below:

- (23) b. *alli* katab al-gissa min/minu?
that write.Past the-story who
Who wrote the story?

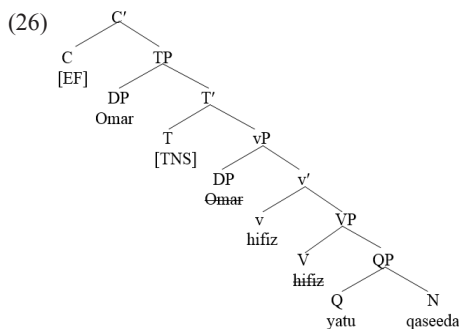


Pied-Piping Wh-Expression

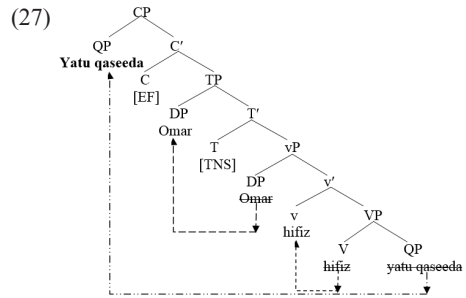
So far, analysing this wh-expression has included the movement of wh-word to a higher position within the same structure. In certain cases, however, it is not just the preposed wh-word under the scope of wh-movement that undergoes movement, as can be seen below:

- (25) a. Omar hifz yatu qaseeda?
Omar memorise.Past which poem
Omar memorised which poem?
- b. *yatu Omar hifz qaseeda?
which Omar .memorise. Past poem
Which poem did Omar memorise?
- c. yatu qaseeda Omar hifza-h?
which poem Omar memorise-it Past
Which poem did Omar memorised?

Wh-movement along with its C-command domain is illustrated in the examples in (25). The sentence in (25b) is thus ungrammatical since the material that is C-commanded by the wh-expression needs to be **pied-piped** (dragged) along with it. As a result, the complete wh-phrase needs to move to [Spec, CP] so as to derive a grammatical sentence like the one in (25c). This is how (25c) is derived: the quantifier *yatu* “which” combined with the noun *qaseeda* “poem”, forming QP *yatu qaseeda* “which poem”. Then, this QP is merged with the lexical verb *hifiz* “memorised” towards forming VP. Eventually, the lexical verb shifts and joins with the small v forming v', with the resultant v' joining with the subject Omar in order to form vP *Omar hifiz yatu qaseeda* “Omar memorised which poem”. vP is thereafter merged with the finite T, which forms T'. The subject Omar then moves to [Spec, T], forming TP. The TP that results from this is then joined with the null interrogative C, which has edge features, forming C' as exemplified below:



Wh-phrase is attracted by the edge features of C, causing its movement to the specifier position on the edge of CP, which can be seen below:



The reason why wh-word is unable to move on its own to [Spec, C] is because such a movement violates the Chain Uniformity Condition. This is formally outlined by Chomsky thusly:

- (28) **Chain Uniformity Condition**
 “A chain is uniform with regard to the phrase structure status” (Chomsky, 1995, p.253)

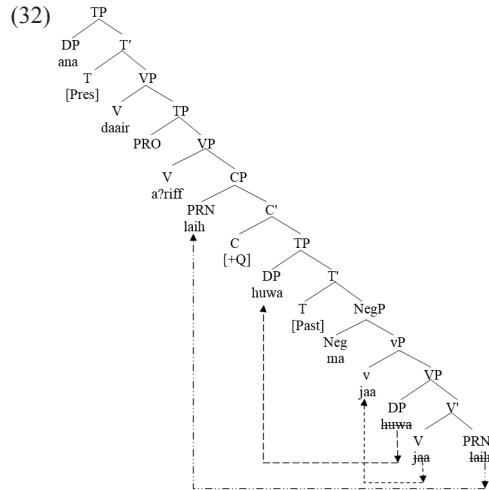
As appropriate to the particular circumstances, Chain Uniformity Condition imposes restrictions on movement and entails that any copy in the movement chain be uniform. The derivation, as seen in the following example, will not converge at LF; therefore, it will crash. This is because the status of the wh-word that was moved to [Spec, CP] has a maximal projection since it is the largest component headed by the wh-word *yatu* “which”. Moreover, the status of its copy has a minimal projection, being the head of QP. Therefore, the UG condition in (28) is violated by the wh-chain.

Wh-Expression in Embedded Clauses

It is also possible that a question in Sudanese Arabic be an embedded, wherein the wh-expression is placed in the initial position of embedded clause, such as:

- (29) Ana daair a?riff **laih** huwa ma jaa?
 I want know why he not come.past
 I want to know why he did not come?
- (30) Ismail bi-yassal **wain** Idriss masha?
 Ismail Cont-ask.Pres where Idriss go.Past
 Ismail is asking where did Idriss go?

On the basis of its semantic and syntactic criterion, the example used in (30) involved the verb **a?riff** “to know”, which is accusative. This verb requires two arguments: the experiencer, which is allotted to the external DP argument **ana** “I”, and the theme, which is assigned to the matrix internal CP **laih huwa ma jaa** “why he did not come”. On the level of grammatical function, the subject of the accusative verb **a?riff** “to know” is the DP, while the CP complement functions as the verb’s grammatical object. Theoretically, verbs which project a matrix clause are referred to as matrix verbs. There are two key facets of such a structure: one is the embedded clause with the wh-phrase in its initial position, and, two, the verb **jaa** “to come” which theta-marks only and only one argument, which is the agent assigned to the DP **huwa** “he”, as seen below:



This is how the tree diagram in (32) is formed: first, the derivation starts with the embedded clause, which contains the unaccusative verb **jaa** “came”, merging with its optional wh-expression complement **laih** “why”, forming V’ **jaa laih** “came why”. The resultant V’ is then joined with the DP **huwa** “he”, which receives the theta role theme from the verb **jaa** “came”, in order to form VP, which, in turn, has the paraphrased interpretation **huwa jaa laih** “he came why”. The lexical verb **jaa** then moves to join together with the small v by virtue of being a strong affix, thus, forming the complex of vP shell for the verb **jaa**. Such a movement of this verb leaves a trace which is ultimately deleted.

Combining the complex of vP shell with the negative particle **ma** “not” then forms NegP **ma jaa huwa jaa laih** “he did not come why”. Next, the resultant NegP is merged with the null functional head T, which has [EPP, Tense, *u*Case] to form T’. T’s EPP feature necessitates a movement of an element from its c-command domain

in order to check this feature. Since the pronoun **huwa** “he” is the closest DP, this DP shifts to [Spec, TP] so as to check the EPP feature of T. This forms TP **huwa ma jaa laih** “he did not come why”. In turn, TP is joined together with the functional head C which carries the [+Q] feature, forming C' **+Q huwa ma jaa laih** “+Q he did not come why”. The [+Q] on C feature needs an element in its c-command to have its matching feature move and adjoin it. Furthermore, this C probes the closest goal that has the matching feature. Because the wh-expression **lahih** “why” is the closest element with this matching feature c-commanded by C, this wh-expression shifts from its canonical place as an optional complement of the verb **jaa** to [Spec, CP] in order to license this [+Q] feature, with its trace left behind. The sentence, therefore, gets an interrogative interpretation **lahih huwa ma jaa** “why he did not come”.

Next, because the verb **a?riff** “know” requires an embedded clause complement, the resulted CP is merged with **a?riff** forming VP **a?riff laih huwa ma jaa** “know why he did not come”. This VP is henceforth merged with the non-finite null subject PRO so as to form TP, which receives the theme theta role to the higher matrix verb **daair** “want”. The TP that comes out of this is then combined with the matrix/control verb **daair** “want” in order to form the highest VP **daair a?riff laih huwa ma jaa** “want to know why he did not come”. VP is then merged with the null functional head T, forming T', which is, in turn, merged with the subject **ana** “I”, which then receives

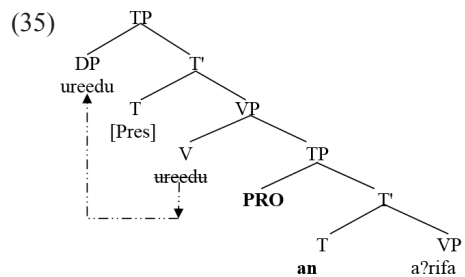
the theta role as experiencer, forming the highest TP **ana daair a?riff laih huwa ma jaa** “I want to know why he did not come”.

The subject **ana** “I” of the matrix clause controls the null subject in the control clause’s complement. Simply put, **ana** is the antecedent of PRO. Furthermore, this PRO is an empty category because it has a null spell out, having the grammatical and semantic features but lacking in phonetic features. The existence of PRO projection in (32) is evident in its counterpart Standard Arabic example used for the same sentence, as can be gleaned from the following:

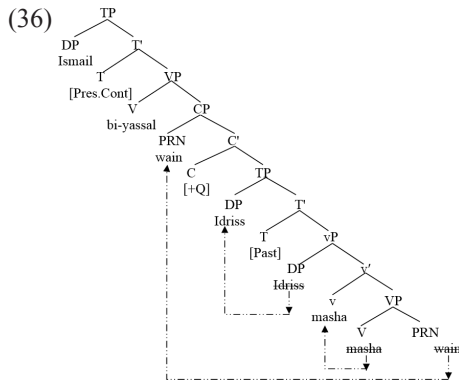
- (33) Ana daair a?riff
 I want know
 I want to know *Sudanese Arabic*
- (34) U-reed-u an a?rif-a
 I-want-Nom to know-Acc
 I want to know *Standard Arabic*

With these as givens, the Standard Arabic example in (34) can be seen in the tree diagram below:

Therefore, in Sudanese Arabic, the non-finite **an** “to” which c-commands PRO in Standard Arabic has become a null spell out.



The example in (31) has also involved the lexical verb **bi-yassal** “is asking”, theta-marking two obligatory arguments: the DP **Ismail** and the matrix CP **wain Idriss masha** “where did Idriss go”. The DP bears the theta role as agent and the CP as theme. The function of this CP is to be the grammatical object to the verb **bi-yassal** “is asking” while having the fronted wh-phrase in its [Spec, C] position. Structurally, the sentences in (31) can be read as follows:



The structure in (36) is derived as below: the derivation first begins at the embedded clause with the unergative verb **masha** “went” merging with the optional argument, the wh-expression **wain** “where”, forming VP **masha wain** “went where”. The verb **masha** gets to move and adjoin the small light verb in *v* because of its strong affix, which triggers the lexical verb to adjoin it, thus forming *v'* **v+masha wain**. Next, this *v'* is then merged with the external argument DP **Idriss**, which is obtained from the numeration, forming *vP* shell. The theta role of agent is assigned to this DP by the unergative verb **masha**. At this point in the derivation, all related features are checked off, while the verb **masha**’s thematic/

argument structure is being syntactically realised in the *vP* shell, which itself is a phase undergoing a transfer.

As the derivation proceeds, the complex of *vP* shell joins with the null functional head *T* that carries [Tense, EPP, & *uCase*] among others. This leads to the formation of *T'*. *T* has an [EPP] feature and it entails the movement of an element in its c-command domain to activate this feature. Because the DP **Idriss** is the closest element c-commanded by *T*, this DP moves to [Spec, *TP*], thus fulfilling this requirement. In turn, *TP* is combined with the functional head *C* which carries [+Q] feature, forming *C'* **+Q Idriss masha wain** “+Q Idriss went where”. Having a [+Q] feature comes with the requisite of having an element with the matching feature in order to move and adjoin it. Furthermore, this *C* is a probe for the closest goal that has the matching feature. Since wh-expression **wain** “where” is the closest element with this matching feature c-commanded by *C*, the wh-expression moves from its canonical position as a complement of the verb **masha** towards [Spec, *CP*] in order to license this [+Q] feature with the sentence getting an interrogative interpretation.

Lastly, the matrix verb **bi-yassal** “is asking” is combined with its *CP* complement. This *CP* ultimately receives theme theta role from the matrix verb, forming *VP* **bi-yassal wain Idriss masha** “is asking where did Idriss go”. This *VP* is then merged with the functional higher *T*, forming *T'*, which is then merged with the DP **Ismail**. This forms *TP* **Ismail bi-yassal wain Idriss masha wain** “Ismail is asking where did Idriss went”.

CONCLUSION

In MP parlance, movement is extremely driven by the morphological requirements of a particular lexical item, thus, enhancing agreement morphology. The locality principle is a crucial point to movement. It is here that the relationship between probe and goal makes the checking and the valuing of features ensured; therefore, achieving morphology-syntax interface. Derivation-by-Phase has been adopted towards providing the syntactic discussion on such movement.

Relative to wh-movement, this paper has analysed and discussed wh-expression with simple questions, namely: with wh-expression moving into the [Spec, CP] position within the same clause; wh-expression in situ, where it stays in its original position within the vP complex; wh-expression in relative clause with the grammar of Sudanese Arabic inserting the particle “alli” in particular with argument wh-expression; pied-piping wh-expression; the structure in which wh-expression is forbidden from the movement on its own, must be dragged into its NP complement and have to be moved together; and wh-expression in embedded clauses with the movement constrained by the control verb heading the upper VP. The common property among all these instances of wh-movement is on the [Q] feature of the head C, which needs an element with the matching feature to move and adjoin it in its [Spec, CP]. Through the movement of wh-expression to [Spec, CP], this requirement is satisfied, thus satisfying the requirement of feature checking between the probe and goal.

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