

## ON LICENSING WH-SCOPE:

### WH-QUESTIONS IN EGYPTIAN ARABIC REVISITED

Usama Soltan (Middlebury College)

First Draft (June 2010)

An argument wh-phrase in Egyptian Arabic (EA, henceforward) questions may surface either *in-situ* in its argument position, as in (1a), or *ex-situ* in a left-peripheral position associated with a resumptive pronoun, as in (1b):<sup>1</sup>

1a. ?inta šuft miin ?imbaarih?  
you saw.2sgmas who yesterday  
“Who did you see yesterday?”

b. miin ?illi ?inta šuft-uh ?imbaarih?  
who that you saw.2sgmas-him yesterday  
“Who is it that you saw yesterday?”

Unlike the majority of other Arabic dialects (see, e.g., Aoun and Choueiri 1998 for Lebanese Arabic; and Shlonsky 2002 for Palestinian Arabic), fronting of wh-arguments is strictly prohibited, as shown by the ungrammaticality of (2) below:<sup>2</sup>

2. \*miin ?inta šuft ?imbaarih?  
who you saw.2sgmas yesterday  
“Who did you see yesterday?”

One main question that has typically arisen in the relevant literature on the syntax and semantics of wh-questions has to do with scope licensing: How does the wh-phrase get to take scope over the rest of the clause, so the clause is interpreted as having interrogative force? In languages that front wh-phrases (as in English 3a), wh-scope licensing is argued to be a

consequence of wh-movement (as shown in 3b), which creates the necessary configuration for an operator-variable interpretation at the semantic level of representation (as in 3c):

3a. Who did you see?

b. [CP Who<sub>i</sub> did [TP you see t<sub>i</sub>]]

c. *For which x, x a person, you saw x?*

Wahba (1984) argues that wh-scope licensing in EA takes place via movement as well: covert movement in the case of in-situ wh-questions, and overt movement in the case of ex-situ wh-questions, coupled with the lexicalization of the trace of the wh-phrase as a resumptive pronoun. In this paper I provide empirical evidence from both island facts and intervention effects against Wahba's analysis, arguing instead for a uniform analysis of wh-questions, whereby wh-scope in both types of questions is licensed not via movement, but rather via the mechanism of unselective binding in the sense of Pesetsky (1987).

The paper is organized as follows. In Section 1, I illustrate with examples how in-situ wh-phrases in EA can take matrix scope, depending on the selectional properties of the matrix predicate. In Section 2, I argue against a movement analysis of wh-questions in EA based on the island-insensitivity of such structures, as well as the fact that they do not give rise to intervention effects of the type first noted in Beck (1996). In Section 3, I argue for a uniform analysis of both types of wh-questions in EA whereby scope licensing takes place via unselective binding *a la* Pesetsky (1987). Section 4 sums up the conclusions of the paper and its implications for the syntax and semantics of wh-questions in natural languages.

## 1. WH-SCOPE IN EGYPTIAN ARABIC

One main issue that has been typically discussed in the literature on the syntax and semantics of wh-questions is that of *scope*. It is generally assumed that for a wh-question to be interpreted, the

wh-phrase has to function as a semantic operator taking scope over the rest of the clause. As noted earlier, the semantic interpretation of the question in (4a) is as in (4b), with a wh-operator binding a variable:

4a. Who did you see?

b. *For which x, x a person, you saw x?*

Since elements that take scope must be structurally higher than the rest of the clause, this raises interesting questions for wh-in-situ structures, where the scope-taking wh-phrase does not appear to occupy such a higher position in surface structure. The issue of wh-scope is not merely a theory-internal question; rather, it has important empirical consequences, since it allows us to account for the scopal properties of wh-phrases in embedded clauses, where a wh-phrase in an embedded clause may still take scope over the matrix CP. I illustrate these scopal properties in this section.

As is well known, there is a correlation between the potential matrix scope of a wh-phrase and the selectional restrictions of the matrix verb. Some verbs may select only interrogative clauses; others only non-interrogative clauses; while some may still select either type, thereby giving rise to cases of ambiguity. I illustrate here with three verbs from EA.

Consider first the verb *saʔal* (=ask/inquire), which may only select an interrogative clause headed by the interrogative complementizer *ʔizaa*, but not the declarative complementizer *ʔin*:

5a. maḥammad      bi-yisʔal              ʔizaa   Huda   ʔaablit          ʔali   (walla   laʔ)

Mohammad      is-asking.3sgmas   if      Huda   met.3sgfem   Ali   (or      not)

“Mohammad is asking if Huda met Ali (or not).”

- b. \*maḥammad bi-yisʔal ʔin Huda ʔaablit ʔali  
 Mohammad is-asking.3sgmas that Huda met.3sgfem Ali

“\*Mohammad is asking that Huda met Ali.”

If the embedded clause contains a wh-phrase, the only possible interpretation is for the wh-phrase to take scope over the embedded clause, not the matrix clause:<sup>3</sup>

6. maḥammad bi-yisʔal Huda ʔaablit miin  
 Mohammad is-asking.3sgmas Huda met.3sgfem who

Mohammed is asking, for which x, Huda met x.

#For which x, Mohammed is asking Huda met x?

“Mohammad is asking who Huda met.”

In-situ wh-phrases inside a CP selected by *saʔal* cannot take matrix scope, therefore.<sup>4</sup>

Now, consider the verb *ʔiftakar* (= think/believe), which selects a non-interrogative clause optionally headed by the declarative complementizer *ʔin*, as shown by the grammaticality contrast in (7):

- 7a. maḥammad ʔiftakar (ʔin) Huda ʔaablit ʔali  
 Mohammad thought.3sgmas that Huda met.3sgfem Ali

“Mohammad thought that Huda met Ali.”

- b. \*maḥammad ʔiftakar ʔizaa Huda ʔaablit ʔali (walla laʔ)  
 Mohammad thought.3sgmas if Huda met.3sgfem Ali (or not)

“\*Mohammad thought that Huda met Ali (or not).”

As we should expect, when the embedded clause contains a wh-phrase, the only possible reading is for the wh-phrase to take matrix scope:

8. maḥammad      ʔiftakar                      (ʔin) Huda   ʔaablit              miinʔ

Mohammad      thought.3sgmas      that      Huda      met.3sgfem      who

For which x, Mohammed thought that Huda met x?

#Mohammed thought that, for which x, Huda met x.

“Who did Mohammad think that Huda met?”

Finally, consider the verb *ʔirif* (= know), which may take either a declarative or an interrogative embedded CP:

9a. maḥammad      yiʔraf                      ʔin      Huda      ʔaablit              ʔali

Mohammad      know.3sgmas      that      Huda      met.3sgfem      Ali

“Mohammad knows that Huda met Ali.”

b. maḥammad      yiʔraf                      ʔizaa      Huda      ʔaablit              ʔali      (walla      laʔ)

Mohammad      know.3sgams      if      Huda      met.3sgfem      Ali      (or      not)

“Mohammad knows if Huda met Ali (or not).”

Now, if the embedded clause has a wh-phrase, then we get ambiguity of the scope of the in-situ wh-phrase:<sup>5</sup>

10a. maḥammad      yiʔraf                      Huda      ʔaablit              miin

Mohammad      know.3sgams      Huda      met.3sgfem      who

Mohammed knows that, for which x, Huda met x.

“Mohammad knows who Huda met.”

b. maḥammad      yiʔraf                      (ʔin)      Huda                      ʔaablit              miinʔ

Mohammad      know.3sgams      that      Huda                      met.3sgfem      who

For which x, Mohammed knows that Huda met x?

“Who does Mohammad know that Huda met?”

To sum up, in-situ wh-phrases in embedded clauses can take scope over the matrix or the embedded CP, depending on the selectional restrictions of the matrix predicate.<sup>6</sup> But if this is the case, then we need an explanation for how a structurally lower wh-phrase can get to take scope over a higher clause. I discuss this next.

## 2. LICENSING WH-SCOPE IN EA: AGAINST A MOVEMENT ANALYSIS

Wahba (1984) argues that wh-scope in EA is derived via movement: In the case of in-situ wh-questions, she argues that this is done via covert movement at LF, whereas in the case of ex-situ wh-questions she argues that the ex-situ wh-phrase overtly moves leaving a trace behind that then gets spelled-out as a resumptive pronoun. In this section, I provide two types of empirical evidence against a movement analysis of wh-questions in EA, the first involving islandhood as a diagnostic for movement, and the second having to do with a class of intervention effects that have been noted to arise with LF movement.

### 2.1 Island-insensitivity

Since Ross (1967), a key diagnostic for movement in linguistic analysis has been islandhood: syntactic dependencies that are sensitive to islands are argued to involve the syntactic operation of movement; if no island effects take place, then the dependency cannot be derived via movement. The principle regulating island effects has been known as *Subjacency* since Chomsky (1973). English wh-dependencies, for example, are sensitive to islands, as illustrated by the Complex NP island below:

11. \**Which book<sub>i</sub>* did you meet the man who wrote *e<sub>i</sub>*?

By contrast, pronominal anaphora in English is not sensitive to islandhood, hence it is assumed to be licensed via binding, not movement:

12. *Every woman<sub>i</sub>* knows the man who stole *her<sub>i</sub>* jewelry.

Wahba's (1984) main argument for her movement analysis of wh-questions in EA is based on what she claims is an asymmetry in behavior between both types of questions when it comes to island effects. In particular, she argues that while in-situ wh-questions are island-insensitive, thereby indicating absence of movement, ex-situ wh-questions, by contrast, are island-sensitive, hence must be derived via overt movement. In this subsection, I argue against Wahba's movement analysis based on theoretical as well as empirical evidence from island facts.

First, Wahba's analysis of in-situ wh-questions as involving covert movement despite the fact that such questions are island-insensitive has proven to be both theoretically as well as empirically problematic. Specifically, it is based on the assumption, first proposed in Huang (1982), that covert movement is not subject to Subjacency, a proposal that is theoretically problematic since it treats movement as a non-uniform operation subject to different principles, a highly undesirable situation. If covert movement is indeed "movement," then it should be subject to the same principles of grammar that constrain overt movement, including Subjacency.

Meanwhile, the assumption has also proven empirically problematic, as it turns out that there are indeed wh-in-situ languages where wh-phrases are not permitted inside islands, e.g., French (Cheng and Rooryck 2000), Vietnamese (Bruening and Tran 2006), Eastern Armenian and Persian (Megerdooian and Ganjavi 2000), Japanese (Watanabe 1992), Iraqi Arabic (Wahba 1991), Hindi (Srivastav 1991), and Mong Leng (Bruhn 2007).

On the other hand, Wahba's claim that there is an asymmetry between both types of wh-questions regarding island sensitivity is factually incorrect. As shown below, with the exception of the wh-island, both in-situ and ex-situ wh-questions allow island violations in EA.<sup>7</sup> Consider first wh-questions where an in-situ wh-phrase occurs inside an island. I illustrate here with the complex NP island (13), the adjunct island (14), the subject island—or, perhaps more accurately

for EA, the topic island—(15), and the coordinate structure island (16).<sup>8</sup>

13a. ?inta ?aabilt ?il-bint illi ?itgawwiz miin?

you met.2sgmas the-girl that married.3sgfem who

“Who<sub>i</sub> did you meet the girl that got married to him<sub>i</sub>?”

b. ?inta simfit ?ishaaʕ(-it) ?in Huda ha-titgawwiz miin?

you heard.2sgmas rumor that Huda FUT-marry.3sgfem who

“Who<sub>i</sub> did you hear the rumor that Huda will get married to him<sub>i</sub>?”

14a. Huda mišyit ?abl ma ?ahmad yi?aabil miin?

Huda left.3sgfem after Ahmad meet.3sgmas who

“Who<sub>i</sub> did Huda leave after Ahmad met him<sub>i</sub>?”

b. ?ahmad ha-yizʕal law mahammad ?aabil miin?

Ahmad FUT-be-upset.3sgmas if Mohammad met.3sgmas who

“Who<sub>i</sub> will Ahmad be upset if Mohammed meets him<sub>i</sub>?”

15. ?il-kalaam ʕan miin Daayi? ʕali?

the-talk about who upset.3sgmas Ali

“Who<sub>i</sub> did the talk about him<sub>i</sub> upset Ali?”

16. ?inta šuft ?ahmad wi miin fi ?il-haflah?

you saw.2sgmas Ahmad and who at the-party

“Who<sub>i</sub> did you see Ahmad and him<sub>i</sub> at the party?”

Consider now wh-questions where an ex-situ wh-phrase is associated with a resumptive pronoun that is itself inside an island. Again, I illustrate here with the same four island types: the complex NP island (17), the adjunct island (18), the subject (or topic) island (19), and the coordinate structure island (20).



17a. miin ?illi ?inta ?aabilit ?il-bint ?illi ?itgawwizit-u-h?  
 who that you met.2sgmas the-girl that married.3sgfem-EV-him

“Who<sub>i</sub> is it that you met the girl that got married to him<sub>i</sub>?”

b. miin ?illi ?inta simʕit ?ishaaʕ(-it) ?in Huda  
 who that you heard.2sgmas rumor that Huda  
 ha-titgawwiz-u-h?

FUT-marry.3sgfem-EV-him

“Who<sub>i</sub> is it that you heard the rumor that Huda will get married to him<sub>i</sub>?”

18a. miin ?illi Huda mišyit ?abl ma ?ahmad yiʔaabl-u-h?  
 who that Huda left.3sgfem after Ahmad meet.3sgmas-EV-him

“Who<sub>i</sub> is it that Huda left after Ahmad met him<sub>i</sub>?”

b. miin ?illi ?ahmad ha-yizʕal law mahammad  
 who that Ahmad FUT-be-upset.3sgmas if Mohammad  
 ?aabl-u-h?

met.3sgmas-EV-him

“Who<sub>i</sub> is it that Ahmad will be upset if Mohammed meets him<sub>i</sub>?”

19. miin ?illi ?il-kalaam ʕann-u-h Daayiʕ ʕaliʕ  
 who that the-talk about-EV-him upset.3sgmas Ali

“Who<sub>i</sub> is it that the talk about him<sub>i</sub> upset Ali?”

20. miin ?illi ?inta šuft-u-h huwwa wi ?ahmad fi ?il-haflah?  
 who that you saw.2sgmas-EV-him he and Ahmad at the-party

“Who<sub>i</sub> is it that you saw Ahmad and him<sub>i</sub> at the party?”

Before I conclude this section, it is worth pointing out that the island examples cited by Wahba (1984) in support of the overt movement analysis of ex-situ wh-questions are in fact ungrammatical for reasons independent of islandhood. In particular, Wahba cites three islands: the wh-island, the complex NP island, and the coordinate structure island. As mentioned earlier, wh-in-situ languages typically disallow wh-island violations (see endnote (8) for possible explanations of the special status of wh-islands and references cited there). It is worth noting, however, that some of the examples given by Wahba are, in fact, ruled out by independent constraints in the language other than islandhood. For instance, Wahba gives the following example to argue that ex-situ wh-questions in EA are sensitive to the wh-island constraint:

21. \*miin ʔilli Mona teʔraf feen huwwa raah?  
 who that Mona know.3sgfem where he left.3sgmas

“Who does Mona know where he went?”

Notice, however, that this sentence is ungrammatical independent of the islandhood of the embedded clause, since it involves a *Superiority* violation in the embedded clause. In addition, multiple wh-questions with adjuncts are generally marginal at best, even when they observe Superiority:

- 22a. ?? miin raah feen?  
 who left.3sgmas where

“Who went where?”

- b. \*feen miin raah?  
 where who left.3sgmas

“Where did who go?”

For the Complex NP constraint, Wahba also cites examples that are probably ruled out for prosodic reasons. Such examples become fully acceptable once the prosody is salvaged, as the contrast between Wahba’s example in (23a) and the slightly altered example in (23b) shows:

23a. \*miin ?illi Ali sara?                    ?il-kitaab ?illi Mona iddat-uh                    lii-ha?  
 who that Ali stole.3sgmas the-book that Mona gave.3sgfem-it to-her  
 “Who did Ali steal the book that Mona gave it to?”

b. miin ?illi Ali sara?                    ?il-kitaab ?illi Mona iddat-h-u-l-ha?  
 who that Ali stole.3sgmas the-book that Mona gave.3sgfem-it-EV-to-her  
 “Who<sub>i</sub> did Ali steal the book that Mona gave it to him<sub>i</sub>?”

Whatever the EA-specific constraint that rules out (23a) turns out to be, it has nothing to do with the fact that there is a relative clause island in the sentence, as indicated by the grammaticality of (23b), which is identical in structure to (23a) in everything except that it has the pronominal objects cliticized onto the ditransitive verb.

Finally, Wahba claims that ex-situ wh-questions where the wh-phrase associates with a resumptive pronoun inside a coordinate structure are ungrammatical, contrary to my judgment and the judgment of the native speakers of EA that I consulted with:

24. ?anhi bint ?illi Fariid faf-ha                    [hiyya wi-Ali] fi-l-maktabah?  
 which girl that Farid saw.3sgmas-her she and-Ali in-the-library  
 “Which girl<sub>i</sub> did Farid see her<sub>i</sub> and Ali in the library?”

To sum up, in this section, I have provided empirical data for island-insensitivity in in-situ as well as ex-situ wh-questions in EA. I have also shown that some of the data cited in Wahba (1984) for island-sensitivity of ex-situ wh-questions are either ungrammatical for independent reasons, or fully acceptable to native speakers. I conclude then that evidence from

island facts indicates that neither type of wh-questions in EA can be derived via movement, whether overt or covert. As it turns out, there is another argument in support of a non-movement analysis of EA wh-questions. I discuss this next.

## 2.2 Intervention effects in EA wh-questions

Since Beck (1996), one diagnostic for LF movement has been that it gives rise to certain intervention effects, leading to degradation in the grammatical status of the sentence. Put briefly, certain elements such as quantifiers and negation are not allowed to co-occur with in-situ wh-phrases. On the basis of the grammaticality contrast between the two German examples in (25a,b), Beck argues that covert movement of the in-situ wh-phrase *wo* is blocked due to the presence of *niemanden*:

25a. ??Wer hat niemanden wo angetroffen?

who has nobody where met

“Who didn’t meet anybody where?”

b. Wer hat wo niemanden angetroffen?

who has where nobody met

“Who didn’t meet anybody where?”

Beck and Kim (1997) also note that the class of interveners includes expressions such as *only* and *also* in wh-in-situ languages such as Korean, as indicated by the degraded status of (26a) and (27a). The grammatical status of these questions improves when the wh-phrase is overtly scrambled to the left of the intervener, as the full grammaticality of (26b) and (27b) indicates:<sup>9</sup>

26a. ?\* Minswu-man nwukwu-lul manna-ss-ni

Minsu-only who-ACC meet-Past-Q

“Who did only Minsu meet?”

b. nwukwu-lul      Minswu-man    manna-ss-ni  
 who-ACC          Minsu-only    meet-Past-Q

“Who did only Minsu meet?”

27a. ?\* Minswu-to    nwukwu-lul    manna-ss-ni  
       Minsu-also    who-ACC      meet-Past-Q

“Who did Minsu, too, meet?”

b. nwukwu-lul      Minswu-to      manna-ss-ni  
 who-ACC          Minsu-also    meet-Past-Q

“Who did Minsu, too, meet?”

Bruening and Tran (2006) observe similar intervention effects in Vietnamese, a wh-in-situ language, where the occurrence of wh-questions with a universal quantifier or a negation particle is not permitted, as illustrated in (28) and (29), respectively:

28a. Aí          cũng      thích      bóng đá  
       who        CUNG    like      football

“Everyone likes football.”

b. \*Aí          cũng      thích      cái gì  
       who        CUNG    like      what

“What does everyone like?”

29a. Chǎng    aí          mò’i      Tân.  
       Neg      who      invite    Tan

“No one invites/will invite Tan.”

b. \*Chǎng    aí          mò’i      aí?  
       Neg      who      invite    who

“Who does/will no one invite?”

By contrast, neither in-situ or ex-situ wh-questions in EA exhibit these blocking effects:

30a. kul walad ?ištaraa ?aġalah

every boy bought.3sgmas bike

“Every boy bought a bike.”

b. kul walad ?ištaraa ?eih?

every boy bought.3sgmas what

“What did every boy buy?”

c. ?eih ?illi kul walad ?ištaraa-h?

what that every boy bought.3sgmas-it

“What is it that every boy bought?”

Blocking effects are also absent with *bas* (= only) and *barDuh* (= also) in EA:

31a. maħammad bas ha-yi?aabil miin?

Mohammad only FUT-meet.3sgmas who

“Who will only Mohammed meet?”

b. maħammad barDuh ha-yi?aabil miin?

Mohammad also FUT-meet.3sgmas who

“Who will Mohammad also meet?”

32a. miin ?illi maħammad bas ha-yi?aabil-u-h?

who that Mohammad only FUT-meet.3sgmas-EV-him

“Who is it that only Mohammed will meet?”

b. miin ?illi maħammad barDuh ha-yi?aabil-u-h?

who that Mohammad also FUT-meet.3sgmas-EV-him

“Who is it that Mohammad also will meet?”

If such intervention effects arise only with LF movement, it follows that their absence in EA wh-questions provides support for the claim made in this paper that such questions do not involve any kind of movement.<sup>10</sup>

To sum up this section, data illustrating both island-insensitivity and absence of LF blocking effects in EA wh-questions provide strong evidence that such questions cannot be derived via movement. But if movement is not involved in the derivation of wh-questions in EA, how can the in-situ or ex-situ wh-phrase get to take scope over matrix CP, to create the necessary operator-variable configuration for the interpretation of questions? I turn to this in the following section.

### 3. WH-SCOPE VIA UNSELECTIVE BINDING

It has been argued in the literature on the syntax of wh-questions that movement is not the sole mechanism for licensing wh-scope. Rather, certain empirical facts point to the presence of another mechanism: *unselective binding* (Heim 1982; Pesetsky 1987).<sup>11</sup> Under this proposal, wh-scope is licensed via a base-generated interrogative Operator in C, such that a wh-question in EA like (1a) has the syntactic representation in (33), ignoring irrelevant structural details:<sup>12</sup>

33. [CP  $Op_i$  [TP  $\gamma$ inta šuft  $miin_i$   $\gamma$ imbaarih]]

The same analysis can be extended to ex-situ questions like (1b), where the null operator binds a clefted wh-phrase in a focused position of a cleft structure, and this latter in turn binds the resumptive pronoun in argument position.

34. [CP  $Op_i$  [<sub>FocP</sub>  $miin_i$  [<sub>CopulaP</sub> Copula [CP  $\gamma$ illi [TP  $\gamma$ inta šuft-u- $h_i$   $\gamma$ imbaarih]]]]]

The cleft analysis of ex-situ constructions was first proposed in Cheng (1997), and there is good empirical evidence that it is indeed the correct analysis, given a set of structural parallelisms between ex-situ questions and cleft constructions in the language.

First, ex-situ constructions involve the obligatory use of the complementizer *?illi*, as well as an (optional) overt pronominal copula, both of which are typical characteristics of cleft constructions in EA. Both properties are illustrated below in (35a), a standard cleft structure in EA, and (35b), a clefted wh-question:

35a. ?el-walad dah (huwwa) ?illi Darab ?ali

the-boy this Copula that hit.3sgmas Ali

“It is this boy that hit Ali.”

b. miin (huwwa) ?illi Darab ?ali?

who Copula that hit.3sgmas Ali

“Who is it that hit Ali?”

Second, wh-clefts can also give rise to pseudo-cleft constructions, whereby the clefted wh-phrase appears in final position:

36a. ?illi Darab ?ali (huwwa) ?el-walad dah

that hit.3sgmas Ali Copula the-boy this

“[The person] Who hit Ali is this boy.”

b. ?illi Darab ?ali (huwwa) miin?

that hit.3sgmas Ali Copula who

“Who is it that hit Ali?”

Third, since adverbials and PPs cannot be clefted in EA, wh-adjuncts cannot occur in the wh-clefting construction either.<sup>13</sup>

37a. \*?imbaarih (huwwa) ?illi ?el-walad dah Darab ?ali

yesterday Copula that the-boy this hit.3sgmas Ali

Intended reading: “It was yesterday that this boy hit Ali.”



b. \*ʔimta (huwwa) ʔilli ʔel-walad dah Darab ʔali  
 when Copula that the-boy this hit.3sgmas Ali

Intended reading: “When was it that this boy hit Ali?”

Notice, finally, that, like clefted nominals, ex-situ wh-phrases may appear in any intermediate CP in the sentence, thereby giving rise to what we may call *wh-in-mid* (compare 38c and 39c), a structure parallel to what is frequently referred to as *partial wh-movement* in languages like German (McDaniel 1989), Hungarian (Horvath 1997), and Malay (Cole and Hermon 1998):

38a. ʔahmad fakir (ʔin) Huda ha-titgawwiz ʔel-raagil dah  
 Ahmad thinking.3sgmas that Huda FUT-marry.3sgfem the-man this

“Ahmad thinks that Huda is getting married to this man.”

b. ʔel-raagil dah huwwa ʔilli ʔahmad fakir (ʔin) Huda  
 the-man this Copula that Ahmad thinking.3sgmas that Huda  
 ha-titgawwiz-u-h

FUT-marry.3sgfem-EV-him

“It is this man that Ahmad thinks that Huda is getting married to.”

c. ʔahmad fakir (ʔin) ʔel-raagil dah huwwa ʔilli Huda  
 Ahmad thinking.3sgmas that the-man this Copula that Huda  
 ha-titgawwiz-u-h

FUT-marry.3sgfem-EV-him

“Ahmad thinks that it is this man that Huda is getting married to.”

39a. ?ahmad fakir (ʔin) Huda ha-titgawwiz miin?  
 Ahmad thinking.3sgmas that Huda FUT-marry.3sgfem who

“Who does Ahmad think that Huda is getting married to?”

b. miin ʔilli ?ahmad faakir (ʔin) Huda ha-titgawwiz-u-h?  
 who that Ahmad thinking.3sgmas that Huda FUT-marry.3sgfem-EV-him

“Who is it that Ahmad thinks that Huda is getting married to?”

c. ?ahmad fakir miin ʔilli Huda ha-titgawwiz-u-h?  
 Ahmad thinking.3sgmas who that Huda FUT-marry.3sgfem-EV-him

“Who is it that Ahmad thinks that Huda is getting married to?”

If the analysis presented here is correct, then it follows that wh-phrases in EA are never question operators. The interrogative operator is always in C, binding a wh-phrase either in argument position (giving rise to the in-situ strategy) or in a focused position (giving rise to the ex-situ strategy).<sup>14</sup> Abstract syntactic representations for both types are given in (40):<sup>15</sup>

40a. [CP *Op*<sub>i</sub> [TP ... *wh-phrase*<sub>i</sub>]]]

b. [CP *Op*<sub>i</sub> [<sub>FocP</sub> *wh-phrase*<sub>i</sub> [<sub>CopulaP</sub> Copula [CP ʔilli [TP ... *pronoun*<sub>i</sub>]]]]]]]

Under the analysis presented here, the structure for a wh-in-mid question such as (39c) would be along the following lines:

41. [CP *Op*<sub>i</sub> [TP ... [VP V [CP [<sub>FocP</sub> *wh-phrase*<sub>i</sub> [<sub>CopulaP</sub> Copula [CP ʔilli [TP ... *pronoun*<sub>i</sub>]]]]]]]]]

#### 4. CONCLUSION

In this paper, I have presented empirical evidence from island-insensitivity and intervention effects against a movement analysis of wh-questions in EA like the one proposed in Wahba (1984). Instead, I have provided a uniform syntactic analysis of in-situ and ex-situ wh-questions in EA, whereby wh-scope is licensed via an interrogative null operator that unselectively binds a

wh-phrase either in argument position (giving rise to the in-situ strategy) or in a focused position (giving rise to the ex-situ strategy). The proposed analysis thus provides further support to the claim that the syntactic mechanisms of movement and unselective binding are both needed in natural language grammar to license wh-scope.

### **Acknowledgments**

For helpful comments and stimulating questions, I would like to extend my thanks to Elabbas Benmamoun, Lina Choueiri, Mushira Eid, Aviad Eilam, Fred Hoyt, Chris Kennedy, Mustafa Mughazi, Hamid Ouali, Norvin Richards, as well as members of the audience at the *23<sup>rd</sup> Arabic Linguistic Symposium* held at University of Wisconsin-Milwaukee, the 2010 *Georgetown University Round Table*, and the *34<sup>th</sup> UPenn Linguistics Colloquium*. I'm also thankful to Fatma Asef, Batool Khattab, Nader Morkus, and Ahmad Soliman for grammaticality judgments.

Needless to say, all errors and shortcomings herein are solely my responsibility.

### **Notes**

1. The following abbreviations are used in the glosses of linguistic data in the paper: 1, 2, 3 for first, second, and third person, respectively; sg = singular; pl = plural; mas = masculine; fem = feminine; FUT = future marker; ACC = accusative, Q = question-particle, EV = epenthetic vowel.
2. In this paper, I focus exclusively on questions with wh-arguments only. Questions with wh-adjuncts (e.g., *leih=why*, *ʔizzaay=how*, *ʔimtaa=when*, *fein-where*), while similar to wh-arguments in certain aspects, exhibit some differences in syntactic behavior. For example, they occur in-situ by default, but they may also appear fronted in the clause without clefting (cf. Section 3 below). For a discussion of the behavior of wh-adjuncts in EA, see Wahba (1984) and Soltan (to appear). Similarly, I will not discuss the role of the particle *huwwa* which can

optionally introduce questions in EA. For a syntactic analysis of the question-particle in yes-no questions, see Eid (1992). For a discussion of the question particle in wh-questions, see Wahba 1984. For an analysis of the morphosyntax as well as a discussion of the semantics/pragmatics of the question-particle, see Soltan (to appear).

3. In this paper, I will follow the standard convention of using a “#” to mark an unavailable reading for a sentence.

4. Notice that the interrogative complementizer *ʔzaa* may not co-occur with a wh-phrase in the embedded clause due to the wh-island constraint (Ross 1967). I will return to islands in Section 2 below.

5. Notice that the use of *ʔin* is optional in (10b), but when used, it forces the embedded clause to be declarative, and the whole sentence is therefore interpreted as a question.

6. Wahba (1984) claims that there is a tense locality requirement on obtaining a matrix scope reading of an in-situ wh-phrase. For her, questions such as (8) are marked as ungrammatical, unless the Q(uestion)-particle *huwwa* is used. I believe she is mistaken. While the use of *huwwa* may have some preference in these contexts, the questions still receive a matrix wh-question interpretation in the absence of an overt Q-particle. There is no tense locality constraint on the interpretation of in-situ wh-phrases in EA, as far my judgments and the judgments of my informants show.

7. The same island-insensitivity has been noted for Lebanese Arabic, which uses the in-situ and ex-situ strategies (cf. Aoun and Choueiri 1998). Similar facts regarding islands have also been reported by Shlonsky (2002) for what he refers to as *Class II* interrogatives, ex-situ in our terms, in Palestinian Arabic.

8. As noted briefly in the text, the wh-island is the only exception in this regard, as shown by the ungrammaticality of both (i) and (ii):

i. \*ʔahmad yiʔraf ʔizaa Huda ʔaablit miin?

Ahmad know.3sgmas if Huda met.3sgfem who

“\*Who does Ahmad know whether Huda met?”

ii. \*miin ʔilli ʔahmad yiʔraf ʔizaa Huda ʔaablit-u-h?

who that Ahmad know.3sgmas if Huda met.3sgfem-EV-him

“Who is it that Ahmad knows whether Huda met him?”

Notice that EA does pattern with other wh-in-situ languages (e.g., Japanese; Watanabe 1992) when it comes to wh-islands. While an elaborate discussion of why this is so is beyond the scope of this paper, it is worth noting that, unlike other islands, wh-islands involve an interrogative C intervening between the in-situ wh-phrase and the matrix interrogative C. Perhaps the unacceptability of sentences like (i-ii) can be explained in these terms. For Japanese, it has been suggested that considerations at the syntax-prosody interface may in fact be relevant for the explanation of the distinctive status of wh-islands in this regard (cf. Ishihara 2004 and Kitagawa 2005).

9. Intervention effects have been noted earlier in the literature in Hoji (1985) for Japanese, also a wh-in-situ language.

10. It is worth noting that the syntactic analysis of intervention effects as proposed in Beck (1996) has been disputed later in Beck (2006), in favor of a semantic analysis. This latter analysis, in turn, has also been questioned in Tomioka (2007a,b) and Eilam (2009, 2010) in favor of an information structure/pragmatics account for such effects. The argument made in this paper against a movement analysis of wh-questions in EA is based on a syntactic approach to

intervention, hence it would lose its force if a semantic or a pragmatic account of such intervention effects turns out to be the correct analysis. That said, the island-insensitivity argument remains robust evidence against a movement account. Thanks to Chris Kennedy and Aviad Eilam for pointing this out.

11. Pesetsky (1987) argues that unselective binding is needed to account for absence of the so-called *Superiority effects* in questions with D-linked wh-phrases versus those with non-D-linked wh-phrases, as illustrated by the contrasts below:

- ia. Who read what?
- b. \*What did who read?
- ii.a. Which student read which book?
- b. Which book did which student read?

While (ib) induces a Superiority violation, (iib) does not. This follows under Pesetsky's account if D-linked wh-phrases are licensed via unselective binding, hence are not sensitive to constraints on movement.

12. Reinhart (1998) points out some problems with the unselective binding approach, arguing instead for a mechanism of choice functions to account for the relevant facts. Whatever the correct mechanism turns out to be, what is relevant to the discussion in this paper is that such a mechanism does not involve movement.

13. For a discussion of why argument and adjunct wh-phrases behave differently in the ex-situ construction, as well as an extension of the analysis proposed here to wh-adjuncts, see Soltan (to appear).

14. In Soltan (to appear), I propose that the Question-particle *huwwa* is an overt form of the interrogative operator in EA.

15. Shlonsky (2002) provides a similar analysis for ex-situ questions (or what he calls *Class II interrogatives*) in Palestinian Arabic. He, however, posits an analysis-internal movement of the wh-phrase from a peripheral position to another peripheral position, motivated primarily by the semantics of predication. The analysis proposed here captures these same facts without the need to posit any movement: The ex-situ wh-phrase receives the same focus interpretation that a clefted nominal does. In absence of empirical reasons for movement in such constructions, I will assume here that no such movement is needed.

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